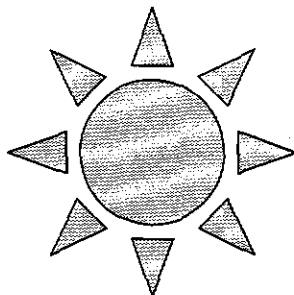


# **RATON GAS TRANSMISSION**



## **OPERATIONS & MAINTENANCE MANUAL**

July 1992  
Amended April 1994  
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## **I. GENERAL**

(Reference 49 CFR Parts 191, and 192)

### **INTRODUCTION**

**Raton Gas Transmission (RGT)** has a strong interest in the safety of the public, as well as its employees and contractors. To help prevent injury, basic rules of operations have been established which apply to all employees and contractors. These rules are, of maintenance necessity, basic and general in nature and are not inclusive of all conceivable operations. Therefore, the continuous cooperation and vigilance of all personnel are needed to see that operating procedures and work methods do not unnecessarily expose personnel to injury or expose property to loss or damage. Good judgment and common sense are required to supplement any safety rules.

RGT operations and maintenance policies and procedures are based on Title 49 (Transportation) of the Code of Federal Regulations (CFR) Sections 191, 192 and 199

RGT owns and operates a pipeline that transports natural gas from Trinidad, Colorado to Raton, New Mexico. On the Trinidad end, gas is supplied from El Paso/Colorado Interstate Gas Company at a contractual volume and pressure. On the Raton end of the pipeline, RGT supplies gas to Raton Natural Gas Company and Natural Gas Processing/Zia.

The pipeline is an 8" pipeline with an MAOP of 445 psig. The pipeline was pressure tested to 490 psig. In most locations the pipeline is buried. It is exposed at custody transfer and meter stations as well as at isolation valves.

#### **Product Description**

Natural Gas is the product transported by this pipeline.

### **DETERMINATION OF CLASS LOCATION**

#### **Scope and Purpose**

The purpose of this procedure is to establish Class location according to 49 CFR § 192.5.

#### **Responsibility**

The Supervisor is responsible for conducting any necessary study to determine a change in class location.

#### **Determination**

It has been determined that the transmission facility is located in a Class 1 area.

#### **Related Procedures**

Maximum Allowable Operating Pressure (MAOP)

## **O&M MANUAL REVIEW/REVISION**

### **Scope and Purpose**

This procedure is to ensure that RGT has developed and maintains a manual of written procedures for conducting normal operations and maintenance activities as well as handling of abnormal operations and emergencies as required by 49 CFR § 192.605(a).

This manual includes the following provisions:

1. Construction records, maps and operating history made available to appropriate personnel for safe operation and maintenance.
2. Provisions for gathering of data necessary for the reporting of accidents in a timely and effective manner.
3. Provisions for operations, maintenance and pipeline repair.
4. Assessment of pipeline location areas that would require immediate operator response in case of failure/malfunction in order to protect the public.
5. Analysis of pipeline failures.
6. Minimization of potential for hazards during pipeline failure/malfunction.
7. Controlling Corrosion.
7. Pipeline startup and shut down procedures.
8. Attended monitoring during startup/shutdown/purging operations.
9. Abandonment of pipeline segments.
10. Procedures for minimization of accidental ignition of gas.
11. Establishment and maintenance of a liaison with Police, Fire and other emergency response officials.
12. Operator personnel work review in order to assess the effectiveness of operations and maintenance procedures.
13. Adequate trench safety precautions for personnel.
14. Abnormal operations procedures.
15. Emergency condition procedures.
16. Safety-related condition reporting requirements.
17. Periodic inspection and testing of pressure limiting equipment.

### **Responsibility**

The Supervisor is responsible for keeping this manual at all locations where operations and maintenance activities are conducted as well as performing a review of the provisions of this manual, and making appropriate revisions as deemed necessary, at the required intervals.

### **Instructions**

This is not a covered task under the RGT Operator Qualification Plan.

### **Review Frequency**

This manual is to be reviewed and revised, as necessary, by the President at an interval not exceeding 15 months, but at least once each calendar year. The routing for this procedure for all amendments, revisions, reviews, and distribution will consist of three approvals: Patricia Link, David N. Link and Larry Martinez, respectively.

### **Reporting/Notification**

Review/revision efforts will be recorded on Form 5000 and must contain appropriate signatures.

18.60.2.2 of the NMPRC requires that RGT report all revisions to this manual to the Pipeline

Safety Engineer within twenty, (20), days after such revision is made and approved.

Copies of this manual as originally distributed, amended, reviewed or revised, are kept in the following locations:

Raton Gas Transmission Operations (Raton, NM)  
Raton Gas Transmission Headquarters (Santa Fe, NM)  
Operational Locations

#### **Related Procedures**

All operations, maintenance and emergency response requirements.

### **O&M WORK REVIEW**

#### **Scope and Purpose**

The purpose of this procedure is to ensure that all pipeline operations and maintenance work performed on RGT facilities is periodically reviewed for effectiveness and adequacy as required under 49 CFR § 192.605 (b) (8).

#### **Responsibility**

The Supervisor is responsible for periodic review of operations and maintenance work performed by personnel on the pipeline.

#### **Personnel Safety**

Personnel safety records must be used as part of the review process in order to assess the effectiveness of work performance.

#### **Equipment and Materials**

No special equipment or materials are required.

#### **Instructions**

This activity is not a covered task under the Operator Qualification Plan.

#### **Inspection Frequency**

All pipeline operations and maintenance work must be reviewed for effectiveness and adequacy once each calendar year, but at an interval not exceeding 15 months. This review should be coincidental with the annual review of the O&M Manual.

#### **Reporting/Notification**

Each O&M Work Review shall be documented by the Supervisor on Form 5001.

#### **Related Procedures**

O&M Manual Review/Revision

## **AVAILABILITY OF CONSTRUCTION RECORDS, MAPS & OPERATING HISTORY**

### **Scope and Purpose**

The purpose of this procedure is to ensure the safety of personnel during maintenance and operations according to the requirements under 49 CFR § 192.605(b)(3).

### **Responsibility**

The Supervisor is responsible for ensuring that all scheduled maintenance and operations functions are accompanied with a set of the most recent construction records and operating history such that personnel safety is maintained.

### **Personnel Safety**

There are no special personnel safety issues.

### **Equipment and Materials**

Proper construction records and recent operating history for the segments(s) to be maintained/inspected.

### **Instructions**

This activity is not a covered task under the RGT Operator Qualification Plan.

### **Steps**

The Supervisor is responsible for ensuring that all scheduled operations and maintenance activities are accompanied with a set of the most recent construction records and operating history such that personnel and public safety is maintained.

### **Reporting/Notification**

Field personnel performing operations and maintenance functions must request pertinent maps and records whenever necessary.

### **Related Procedures**

Construction

## **EXCAVATION SAFETY**

### **Scope and Purpose**

This procedure is to ensure employee safety in excavated trenches as required by 49 CFR § 192.605 ( b ) ( 9 ).

### **Responsibility**

The Supervisor is responsible for ensuring that all RGT employees working in excavated trenches are protected according to the provisions of this procedure.

### **Personnel Safety**

All RGT personnel are to utilize proper protective clothing/equipment when performing pipeline operations and maintenance functions while in excavated trenches.

### **Equipment and Materials**

Traffic cones and warning signs  
Traffic barricades  
Ingress/egress ladder  
Shoring equipment



Breathing apparatus  
Rescue harness retrieval equipment

In trenches <5 feet in depth, an ingress/egress ladder will be placed in the trench and a fire extinguisher will be readily available at the work site.

In trenches  $\geq$ 5 feet in depth, an ingress/egress ladder will be placed in the trench and a fire extinguisher will be readily available at the work site. Additionally, a trench box or other approved shoring shall be used, and a rescue harness retrieval equipment system shall be used for each employee in the excavated trench, including welding personnel.

Where a low oxygen atmosphere is detected, a breathing apparatus shall be used for each employee in the excavated trench, including welding personnel.

#### **Instructions**

This activity is not a covered task under the RGT Operator Qualification Plan, however, work in excavated trenches may entail one or more covered tasks. Refer to the RGT OQ Plan for specific covered tasks and associated qualification requirements.

#### **Reporting Notification**

All excavated trench work must be coordinated with the Supervisor prior to the commencement of any work.

#### **Related Procedures**

All Operations and Maintenance Procedures performed in excavated trenches.

### **DAMAGE PREVENTION**

#### **Scope and Purpose**

The purpose of this standard is to establish procedures for the prevention of damages to natural gas facilities according to the requirements of 49 CFR § 192.614.

#### **Responsibility**

All RGT personnel.

#### **Personnel Safety**

There are no special personnel safety issues associated with this procedure.

#### **Equipment and Materials**

Written and verbal correspondence/communications to all excavators and landowners along the RGT right of way(s) including, but not limited to:

Utility Notification Center of Colorado, (UNCC), telephone number

New Mexico One-Call System telephone number

Wallet cards

Bumper stickers

Newspaper advertisements

Radio announcements

Excavator Notification List

Excavator Notification Letter

#### **Instructions**

This activity is not a covered task under the RGT Operator Qualification Plan.

### **Frequency**

Written correspondence should be sent by RGT on a semi-annual basis (twice per calendar year).

### **Steps**

1. The RGT Excavator Notification List shall be updated annually prior to mailing of the Excavator Notification Letter. The list must include names and addresses of companies normally performing excavation activities along the right of way and within the operating area of RGT facilities. Local architects and engineering companies should also be included. The written correspondence to excavators should include RGT emergency telephone number as well as utility location requirements through RGT 1-811 or New Mexico One-Call System at, 1-800-321-2537 and the Utility Notification Center of Colorado (UNCC) at, 1-800-922-1987.
2. Supplemental forms of damage prevention advisories may be implemented as deemed necessary including, but not limited to, public service announcements, newspaper advertisements, media/press releases. A copy of any Excavator Handbook, which identifies the proper procedures for requesting facility locations prior to excavation, and available through the New Mexico One-Call System and/or the Utility Notification Center of Colorado (UNCC) will be sent to each excavator. These advisories will also be directed to the general public within the RGT area boundaries.
3. RGT will establish a damage prevention liaison through membership/participation on local advisory boards, industry organizations, and representation at engineering pre-construction meetings such as; Home and Building Associations, County Excavation and Contractor Associations, Local Locating Groups.
4. RGT shall maintain a top-level membership with the New Mexico One-Call System and the Utility Notification Center of Colorado (UNCC).
5. RGT will provide temporary location marking of all buried gas facilities in an area where excavation intent has been received.
6. Follow-up inspection of gas facilities that may be damaged by excavation activities will be performed on the excavation commencement date and again within two,
7. (2), working days after completion of the subject excavation in order to ascertain pipeline integrity. After all blasting activities, a follow-up inspection of the gas facilities in the surrounding area will be performed. A leakage survey may also be performed.
8. All written and verbal correspondence/communications to all excavators and landowners will include information regarding how the public can learn of the location of underground pipelines both under item 5., above, and through examination of gas system maps/plats, upon request.
9. Notices of excavation near RGT pipelines may be provided by calls from the general public, other companies or operators, or recognition by RGT personnel. Notice in New Mexico call RGT at (505) 445-3613 or 1-811 and the New Mexico One call system at 1-800-321-ALERT or the Utility Notification Center of Colorado, (UNCC), at 1-800-922-1987.
10. Any RGT personnel, such as secretaries, operations personnel, or supervisors receiving such a notice should record the following information on Form 12000 Locate Request Record:
  - a. Date and time of notice.
  - b. City work is in or near.
  - c. Physical location of work.
  - d. Description of work.
  - e. Time of day and date of job.
  - f. Name of company doing work.

- g. Name of person(s) to contact.
  - h. Contact phone number.
  - i. One-call system ticket number.
11. After receiving, documenting and filing of notices, RGT personnel shall contact the Supervisor, if available, or field technician, and advise them of all information recorded. The Supervisor or field technician will proceed to the excavation location and mark all RGT pipelines with a bright colored flagging ribbon. The Supervisor or field technician will meet with personnel performing excavation to ensure safety of RGT pipelines.

#### **Reporting/Notification**

RGT shall retain copies of any and all correspondence and promotional materials distributed in the RGT operating area for a minimum of one year after distribution, or until the next correspondence period occurs.

RGT shall submit a Third Party Damage Report (Appendix B1) to the NMPRC on an annual basis. RGT will submit an annual report of Third Party Damage to the COPUC no later than March 15 of each calendar for damages incurred during the previous calendar year.

#### **Related Procedures**

Construction

110 General Pipeline Repair

All other Operations and Maintenance Procedures performed in excavated trenches.

### **PUBLIC EDUCATION**

#### **Scope and Purpose**

The purpose of this standard is to establish procedures for education of the public according to the requirements of 49 CFR § 192.616.

#### **Responsibility**

All RGT personnel.

#### **Personnel Safety**

There are no special personnel safety issues associated with this procedure.

#### **Equipment and Materials**

Information about gas properties

Recognition of gas odors

Actions to take when a strong gas odor is present

Notification of the gas company prior to excavation

Telephone numbers for customers to report gas leaks during both business and non-business hours.

#### **Instructions**

This activity is not a covered task under the RGT Operator Qualification Plan.

#### **Frequency**

Each type of listed written correspondence/communications should be sent/announced to the general public, schools, businesses, government agencies and excavators along RGT rights of way once per calendar year.

The pamphlets shown below published by state and regional gas associations and by the American Gas Association and the American Public Gas Association on the properties of gas and emergency information will be furnished to public officials, the public and emergency response groups, see **FIGURES IV-1, IV-2, and IV-3.**

This information will be conveyed to the public by a number of means such as:

- Radio and television
- Newspapers
- Newsletters
- Meetings
- Bill stuffers
- Mailings
- Handouts
- Bulletin board

All Public Education correspondence will be distributed in the English and Spanish languages.

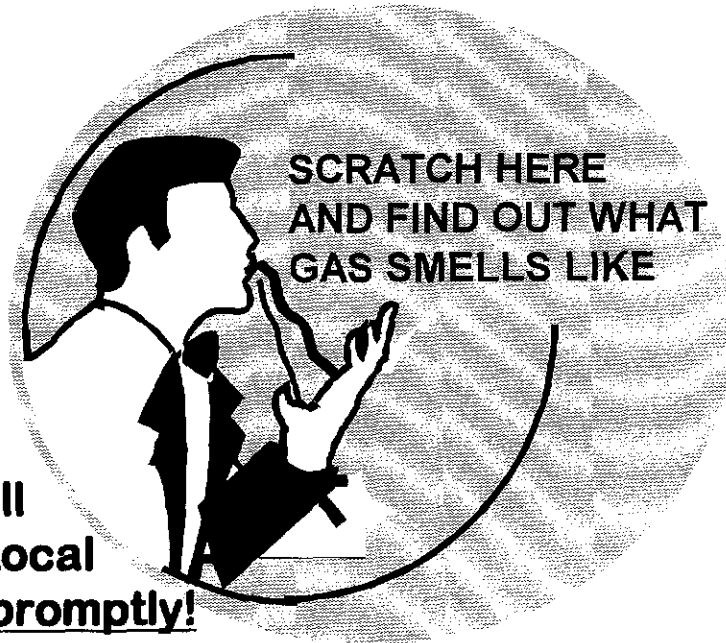
**Reporting/Notification**

RGT shall retain copies of any an all public education correspondence and promotional materials distributed in the RGT operating area for a minimum of one year after distribution.

FIGURE IV-1

# Identify the smell!

**If you ever smell  
gas, call your Local  
Gas Company promptly!**



Natural gas is odorless in its natural state. We add this disagreeable smell to let you know if any gas is escaping.

Gas leakage may occur from faulty appliances, loose connections, service lines inside or outside your home, or from gas mains. Leaks can be dangerous and should be dealt with promptly by experts.

**IF YOU EVER SMELL GAS -- even if you do not use it in your home -- take these precautions promptly:**

1. Call your local Gas Company.
2. If odor is very strong and you are indoors, go outside.
3. Do not turn any electrical switches on or off.
4. Do not light matches, smoke or create any other source of combustion.

However slim the chances of danger, it doesn't pay to needless risks. At the first sniff of gas, play it safe. Call us!

FIGURE IV-2

## HOW CAN YOU PREVENT GAS EMERGENCIES

- ① Keep all appliances cleaned, properly vented and serviced regularly.
- ② Make sure everyone in your family knows how to operate gas appliances and shut-off valves.
- ③ Don't use an open gas oven for heating your home or drying clothes.
- ④ Don't use or store gasoline, aerosols or other products with flammable vapors near gas appliances.
- ⑤ Whenever changing your furnace filter be sure to replace the compartment door.
- ⑥ Never cover fresh air vents that supply air to your gas appliances.
- ⑦ Have all gas line alterations and appliance repairs performed by a professional.
- ⑧ Before digging in your yard, be sure you know the location of underground gas lines. Call your local One Call Center.
- ⑨ Write your fire and police department phone numbers and our emergency service number in the front of your phone book.

ANYTIME YOU SUSPECT A GAS LEAK OR GAS EMERGENCY CALL YOUR LOCAL GAS COMPANY. THEY'RE EXPERTS AT THEIR JOB, AND RESPOND TO EMERGENCY CALLS.

FIGURE IV-3

### WHAT IS NATURAL GAS?

Natural gas is a non-toxic, colorless fuel, about one-third lighter than air. Gas burns, but only when mixed with air in the right proportion and ignited by a spark or flame. In its purified state, gas has no smell. For your protection, the Gas Company adds a harmless, distinctive odor so you can detect and report the slightest gas leak.

### HOW SAFE IS NATURAL GAS?

Natural gas has an excellent safety record, but like other forms of energy, it requires a certain amount of caution. Gas emergencies are rare, but they can happen:

- \* Whenever gas leaks from a pipe or pipe fitting, there is a possibility of fire or explosion.
- \* If leaking gas accumulates in a confined space, it can displace air and cause suffocation.
- \* If a gas appliance is not working properly, incomplete combustion can produce carbon monoxide and other toxic gases.
- \* A pilot light or gas burner can ignite combustible materials and flammable vapors, such as gasoline, paint thinner or aerosols.

**KNOW  
WHAT  
GAS  
SMELLS  
LIKE!**

**¡SEPA A  
QUE  
HUELE  
EL  
GAS!**

**If you ever smell gas, call  
your Local Gas Company  
promptly.**

**Si huele a gas alguna vez, llame  
inmediatamente a la Compañía  
Local de Gas al.**



**Local Gas**

## II. DESIGN/CONSTRUCTION

### MAXIMUM ALLOWABLE OPERATING PRESSURE (MAOP)

#### Scope and Purpose

This procedure establishes the Maximum Allowable Operating Pressure (MAOP) for the RGT transmission piping system owned and operated by RGT. This procedure complies with 49 CFR § 192.619 and 621 requirements.

#### Responsibility

The Supervisor shall maintain evidence of MAOP establishment for the appropriate interval.

#### Equipment and Materials

Strength and leak test records.

#### Instructions

This is not a covered task under the RGT Operator Qualification Plan.

The subject pipeline has an MAOP established under 49 CFR § 192.619 (a)(2)(ii), as follows:

Pipeline Segment	Class Location	Design Pressure	Test Pressure	MAOP
8" RGT Transmission	Class 1	500 psig	490 psig (ANSI 300)	445 psig

All pressure-relief devices and pressure-limiting devices shall be designed and installed on pipeline facilities to insure that the pressure may not exceed the MAOP by more than ten percent (10%).

All repair and/or renewal segments will have an MAOP of 445 psig established under 49 CFR § 192.619 (a)(2)(ii) using pretested pipe and according to the Facility Leak Test Requirements standard.

#### Related Procedures

Determination Of Class Location

Pretested Pipe

Construction

5 Abnormal Operating Conditions

20 Startup/Shutdown/Purging

60 Pressure Limiting And Regulating Stations – Inspecting And Testing

220 Record Keeping



## **PRETESTED PIPE**

### **Scope and Purpose**

RGT will pre-construction leak test all pipe that is to be used for emergency repair purposes.

### **Responsibility**

The Supervisor shall be responsible for ensuring that all emergency repair to the transmission pipeline are accomplished using only piping segment that have been tested in accordance with the provisions of this standard.

### **Equipment and Materials**

Compressed air supply  
Calibrated pressure gauge/chart  
Paper test tag

### **Instructions**

This is not a covered task under the RGT Operator Qualification Plan.

### **Steps**

RGT will pre-construction test a minimum of twenty feet, (20 ft.), of eight inch, (8 in.), schedule 40 Grade B or X42 pipe to be used for emergency repair of the transmission facility. The test pressure using air will not be less than 490 psig applied for a minimum of eight, (8), hours.

All pretested pipe will be tagged with the following information:

Date of Test	Pipe Size/Grade/Type
Test Medium	Test Duration
Location of Test	Test Pressure
Name of Employee Performing Test	

### **Reporting/Notification**

A paper test tag will be used to record all required test data. This tag will remain affixed to the subject pipe until used in its entirety. All pre-tested pipe used in the will be noted on appropriate system plats/maps.

### **Related Procedures**

Maximum Allowable Operating Pressure (MAOP)

## **CONSTRUCTION**

### **Scope and Purpose**

All new construction will be performed by individuals in a manner that adheres to the applicable sections of this Manual and to the OQ Plan of RGT.

### **Instructions**

Construction activities are not covered tasks under the Operator Qualification Plan until new facilities are tied in and gas is introduced.

### **Steps**

All segments of transmission facilities will have an effective cover of sixty inches, (60 in), wherever possible, with the exception of block valves and pressure limiting/relief facilities.

Proper backfill, padding and compaction practices shall be adhered to at all times.

All buried transmission facilities shall have a minimum vertical separation of twelve inches, (12 in.), from other buried structures.

All buried transmission facilities shall have a minimum horizontal separation of thirty-six inches, (36in.), from other buried structures in order to facilitate access for repair and to promote protection from damage.

Valves must conform to API 6D.

Flanges must conform to ANSI B16.5 or equivalent.

Butt-weld fittings must conform to ASTM A 105 forged steel welding type specifications.

Anodes will be thermally welded to the pipeline, as deemed necessary. Anode type will be magnesium of a size applicable to the system/segment.

All buried pipeline segments will be coated and cathodically protected at the time of installation.

### **Reporting/Notification**

Personnel performing construction function on the pipeline must obtain pertinent maps and records to ensure safety.

All construction records will be properly documented and maintained at the operations headquarters for the useful life of the facility.

18.60.2.18 of the NMPRC requires that RGT give written notice to the Transportation Division Director, P. O. Box 1269, Santa Fe, NM 87504-1269, of the intent to construct, the size and approximate location of new pipelines, and the contemplated date of commencement of construction.

### **Related Procedures**

Damage Prevention

110 General Pipeline Repair

All other Operations and Maintenance Procedures performed in excavated trenches.

### **III. OPERATIONS**

#### **PROCEDURE 5 – ABNORMAL OPERATING CONDITIONS**

##### **Scope and Purpose**

The purpose of this standard is to establish procedures for recognizing, reporting and handling abnormal operating conditions according to the requirements of 49 CFR § 192.605(c).

##### **Responsibility**

All Raton Gas Transmission personnel.

##### **Personnel Safety**

All RGT personnel are to utilize proper protective clothing/equipment when performing pipeline abnormal operations and maintenance functions.

##### **Equipment and Materials**

Equipment and materials will vary depending on the nature of the abnormal operating condition.

##### **Instructions**

This activity is a covered task under the RGT Operator Qualification Plan and may only be performed by or directed and observed by an individual who is currently qualified to perform this procedure. Refer to the RGT OQ Plan for specific qualification requirements.

*Abnormal Operating Condition* is defined as, "events or occurrences which cause operating design limits to be exceeded on any segment of the pipeline system or any other activity which creates or causes operating conditions outside the range of those normally experienced on the gas system". Abnormal Operating Conditions can be caused by, but are not limited to, the following:

##### **3<sup>rd</sup> Party Damage**

The unintentional closing or shutdown of a regulator or valve

Regulator or valve failure

An increase or decrease in pressure or flow rate outside normal operating limits

The operation of any safety related equipment such as relief valves, emergency shutdown systems

Loss of electrical power at critical facilities

Loss of communications

Any other malfunction of a component, deviation from normal operation, or personnel error, which may result in a hazard to persons or property

Abnormal Operating Conditions may include, but are not limited to, the following:

System overpressure

System under pressure

Loss of flow

Gas leakage

**Relief Valve venting:**

When a relief valve is observed to be venting gas to the atmosphere, the first response is to contact El Paso/Colorado Interstate Gas Company (719-520-4221) and have delivery temporarily ceased. Then operations personnel will determine the cause of the venting. Upon resolution of the problem, the supplier shall be notified for service to be resumed.

**Unintended valve closure:**

An unintended valve closure will be signaled by higher than normal pressures and venting of relief valves. Operations personnel must first verify the high pressure and then contact El Paso/Colorado Interstate Gas Company to temporarily cease the delivery of gas to the system if necessary. The incident shall be investigated and the valve returned to the correct operating position. If delivery was interrupted, it may be restored once approval is obtained from the Supervisor. Pressure, flow rates, and equipment status shall be monitored carefully after the incident is corrected.

**Unintended shutdown of pipeline system:**

When operations personnel notices that the pipeline system has been shut down, an investigation shall begin for the shutdown. If the **transporter/supplier** was not aware of the shutdown, El Paso/Colorado Interstate Gas Company shall be immediately notified. The Supervisor shall also be notified immediately.

**Change in pressure beyond the normal operating boundary:**

Indications that a change in pressure or flow rate has occurred are abnormal pressure readings and flow meter readings. Data that asserts a change in pressure or flow rate shall be verified. Operations personnel shall evaluate the entire affected pipeline system to determine whether a problem exists. If the problem proves to be severe, operations shall notify the **transporter/supplier** that the system will be shut down. However, if the problem does not warrant shutting down the pipeline, then the operator shall continue to operate the pipeline and investigate the problem. Upon resolution of the problem, the operator shall bring the pipeline back on-line with normal start-up procedures and monitor readings closely.

**Loss of Communication:**

**RGT has no remotely operated valves. In the event of a communications loss in regards to telemetry, operations personnel shall monitor pipeline conditions immediately upstream and downstream of the outage.**

**Personnel Error of Equipment Operation:**

Upon the discovery of a personnel error during the operating of equipment, the operations personnel present will determine the severity of the situation. If an emergency circumstance is possible, operations personnel will immediately shut down the pipeline and notify the Supervisor. When the problem has been solved, Operations personnel may proceed with normal start-up procedures. If the error will not result in an emergency situation, then operations personnel will solve the problem.

**Malfunction of equipment of a component that could result in an emergency situation (including safety-related devices):**

Upon the discovery of the malfunction of a component that could lead to an emergency situation, operations personnel will immediately shut down the pipeline and notify the Operations Superintendent and Operations Consultant. When the problem has been solved, Operations personnel may proceed with normal start-up procedures.

**Reporting/Notification**

Following an abnormal operations event, the Supervisor will be responsible for gathering all information relevant to the event. The Supervisor will then complete Form 20000, including but not limited to, company response to the event, suspected causes of the event, corrective measures taken, and any steps which might be taken to prevent the event from occurring in the future. The report should also include a time log. This report will be directed to the President.

**PROCEDURE 10 – CONTINUING SURVEILLANCE**

**Scope and Purpose**

The procedure describes the minimum requirements for taking appropriate action on or adjacent to the pipeline in areas where changes in class location, failures, leakage history, corrosion, substantial changes in cathodic protection requirements and other unusual operating and maintenance conditions occur.

**Responsibility**

The Supervisor is responsible for continual observation along the transmission right-of-way and to take any necessary remedial action deemed necessary according to this procedure.

Each RGT employee will be trained to properly observe, in the course of routine duties, the surface conditions on and adjacent to company pipeline facilities for any indications of leaks, exposures, construction activity, and other factors that could affect company facilities, and if necessary make a report of these observations for remedial action.

**Equipment and Materials**

A vehicle may be required to inspect facility locations and the right-of-way.

**Instructions**

This activity is a covered task under the Operator Qualification Plan and may only be performed by or directed and observed by an individual who is currently qualified to perform this procedure. Refer to the RGT OQ Plan for specific qualification requirements.

**Survey Steps**

All facilities accessible by roadway will be inspected by driving. All remaining pipeline sections will be inspected by walking.

Conditions to be observed:

1. Class location changes
2. Facility/material failure
3. Unauthorized activities (e.g. excavation)
4. Encroachment on right-of-way
5. Erosion, subsidence, washout, etc.
6. Indications of leaks
7. Exposed pipe

8. Condition of above grade facilities
9. Off-road vehicle tracks or other surface damage causing loss of pipe cover or loss of surface vegetation

Additional Information to be considered

1. Leakage history (excessive leakage)
2. Corrosion/cathodic protection records  
(Substantial changes in cathodic protection requirements)
3. Other unusual operating/maintenance conditions

The Supervisor shall examine all completed records of Continuing Surveillance (Form 2000) on a quarterly interval in order to determine if any trends in operating conditions exist that require remedial action.

Any pipeline segment found to be in unsatisfactory condition, but where no immediate hazard exists, shall be analyzed for phasing out of service, reconditioning or a reduction in MAOP in accordance with §192.619 ( a ) and ( b ).

Once a hazardous situation has been identified, it will be rectified immediately, reported on as required and then follow up monitoring will be performed to ensure that the repair or correction has been successfully completed. Periodic surveillance of the affected facility will be performed to ensure that a safe, normal operating state has been reached. The interval for continuing surveillance will be dictated by the severity of the incident and will be controlled by the judgment of the Supervisor, but in no case will exceed three months.

**Reporting/Notification**

Form 2000 should be completed for each inspection. The Gas Operations Supervisor should be notified of conditions requiring remedial action.

**Related Procedures**

30 Pipeline Patrolling  
40 Leakage Surveys  
50 Pipeline Markers  
140 Investigation of Failures  
170 Abandonment of Pipeline Facilities

**PROCEDURE 20 – START-UP/SHUT-DOWN/PURGING**

**Scope and Purpose**

This procedure is to ensure the safe and proper startup/shutdown and purging of any portion of the RGT pipeline system, with the exception of gate and regulator stations, within the allowable operating limits according to 49 CFR § 192.605 (b) (5) and 629.

**Responsibility**

Field personnel are responsible for starting up/shutting down and purging of the system under this procedure.

**Personnel Safety**

All RGT personnel are to utilize proper protective clothing/equipment when performing pipeline startup/shutdown and purging procedures.

**Equipment and Materials**

All RGT personnel are to utilize proper tools, materials and equipment required for each start-up/shut-down and purging procedure including:

Communications equipment  
Flame retardant clothing  
Grounding apparatus  
Compressed air supply  
Calibrated pressure gauges/charts  
Combustible Gas Indicator (CGI)  
Fire Extinguisher(s)

**Instructions**

This activity is a covered task under the RGT Operator Qualification Plan and may only be performed or directed and observed by an individual who is currently qualified to perform this procedure. Refer to the RGT OQ Plan for specific qualification requirements.

**Startup/Purging Steps**

1. Check all equipment for proper operation prior to commencement of any startup and purging procedures.
2. Ground all pipeline facilities prior to all startup and purging procedures.
3. Do not purge directly from any plastic facility.
4. Introduce gas into one, (1), end of the facility at a rate sufficient to eliminate the formation of a combustible mixture.
5. Monitor all pressure gauges at each available location.
6. Utilize valves for displacement of air from the pipeline.
7. Continue monitoring all pressure gauges until proper operating pressure, (within design limits), is achieved.
8. Verify that all air has been displaced prior to closure of all valves using a CGI.
9. Lock all critical valves in the desired normal operating position to ensure continued safe pipeline operation.

**Shutdown/Purging Steps**

1. Follow step 1. listed for Startup/Purging Procedures.
2. Ground all pipeline facilities prior to all shutdown and purging procedures.
3. Do not purge from any plastic facility.
4. Introduce air into one, (1), end of the facility at a rate sufficient to eliminate the formation of a combustible mixture.
5. Monitor all pressure gauges at each available location.
6. Utilize valves for displacement of air from the pipeline.
7. Continue monitoring all pressure gauges until the desired pressure is achieved.
8. Verify that all gas has been displaced prior to closure of all valves using a CGI.
9. Lock all critical valves in the desired position.
10. Some shutdown activities will simply require that critical valves be closed in order to isolate a particular segment of the pipeline.

**Regulator Station Startup/Shutdown**

Refer to Regulator Stations/Relief Devices for specific startup/shutdown procedures for these facilities.

**Reporting/Notification**

Notify the Supervisor of any problems encountered during startup/shutdown and purging procedures. Form 8000, Gas Loss Record must be completed for each purging procedure.

**Related Procedures**

60 Pressure Limiting And Regulating Stations – Inspection And Testing

80 Prevention of Accidental Ignition

**PROCEDURE 30 – PIPELINE PATROLLING****Scope and Purpose**

This procedure is to ensure the safe operation of the RGT pipeline system by periodically performing patrolling as required by 49 CFR § 192.705.

**Responsibility**

The Supervisor is responsible to ensure that all pipeline system patrolling is performed according to the provisions of this procedure and that proper records are maintained.

**Personnel Safety**

There are no special personnel safety issues.

**Equipment and Materials**

Personnel may elect to utilize leak detection instrumentation and photographic equipment during patrolling efforts.

**Instructions**

This activity is a covered task under the RGT Operator Qualification Plan and may only be performed by or directed and observed by an individual who is currently qualified to perform this procedure. Refer to the RGT OQ Plan for specific qualification requirements.

1. The pipeline system shall be patrolled to observe surface conditions on and adjacent to the pipeline right-of-way for indications of leaks, construction activity, and other factors that may affect the safety and operation of the pipelines. Frequency of patrols shall be determined by the size of the line, operating pressures, class location, terrain, weather and other relevant factors, but intervals between patrols may not exceed the following:

Class location of line	<u>Maximum interval between patrols</u>	
	At highway and railroad crossings	At all other places
1,2	7 ½ months; but at least twice each calendar year	15 months; but at least once each calendar year



1. Patrolling shall normally be performed by foot patrol or vehicle patrol.
2. Ground patrolling shall be performed at regular intervals in encroachment areas and areas of unusual activity or construction. Form 11000, Pipeline Patrolling; Form 3000, Changes In Class Location; Form 1060, Atmospheric Pipe Inspection; Form 1040, Foreign Line Crossing Report, and other report forms shall be prepared where applicable.
4. As soon as is possible after heavy rainstorms, the RGT facility is are to be patrolled where areas of exposure to running water may exist, regardless of normally required patrolling frequency:

#### **Reporting/Notification**

Form 11000 will be completed each time the pipeline is patrolled. The Supervisor must be notified immediately if any evidence of leaks, other damage is discovered or if there are any new identified sites as defined by the RGT Integrity Management Plan. All non-leaking damages will be scheduled for repair at the earliest opportunity. All damages associated with leakage will be scheduled for repair according to leak classification. Sketches or additional data shall be used to supplement reports where necessary.

#### **Related Procedures**

40 Leakage Surveys  
50 Pipeline Markers  
110 General Pipeline Repair  
200 External Corrosion Control  
220 Record Keeping

### **PROCEDURE 40 – LEAKAGE SURVEYS**

#### **Scope and Purpose**

The purpose of this procedure is to ensure the safe operation of the pipeline system through periodic leakage surveys according to the requirements of 49 CFR § 192.706.

#### **Responsibility**

The Supervisor is responsible to ensure that all pipeline system leakage surveys are performed according to the provisions of this procedure and that proper records are made.

#### **Personnel Safety**

There are no special personnel safety issues.

#### **Equipment and Materials**

Facility Maps  
Flame Ionization Detector (FID)  
Combustible Gas Indicator (CGI)  
Bar Hole Equipment

#### **Instructions**

This activity is a covered task under the Operator Qualification Plan and may be only be performed by or directed and observed by an individual who is currently qualified to perform this procedure. Refer to the RGT OQ Plan for specific qualification requirements.

1. A leakage survey shall be conducted on the pipeline at intervals not exceeding fifteen (15) months, but at least once each calendar year.
2. The Southern Cross Flame Pack 400 shall be used to detect surface or atmospheric gas. When a leak is detected underground, a CGI instrument should be used to pinpoint the location of the leak along with barhole equipment.
3. All leaks found which result from split seams or other defects in the pipeline proper, shall be reported on Form 4010, Report of Breaks, Leaks, and Damages.
4. All leaks found on above ground piping shall be reported on Form 10000, Leakage Survey. Leaks on above ground piping shall be repaired at the time of inspection, if possible. If repair cannot be accomplished at the time of inspection, the leak should be noted and remedial measures taken to stop the leak at the earliest opportunity.

#### **Leak Grading**

Leaks are assigned priority grading according to location, extent of migration, gas concentration, potential for concentration, ignition sources and potential hazard to the public and property. These priority grades are intended only as guidelines. Individuals evaluating leaks are required to use sound judgment after considering all associated factors for each leak.

Leaks are typically graded, as follows:

**Grade 1 - Hazardous** – Leaks that pose an immediate hazard to persons or property. These leaks require continual monitoring until repair is achieved. Prompt remedial action must be undertaken for leaks classified as hazardous.

**Grade 2 - Intermediate** – Leaks that are not hazardous at the time of discovery, but may become hazardous to persons and property at some future date. These leaks will be scheduled for permanent repair within one calendar month from the date of discovery.

**Grade 3 – Non-Hazardous** – Leaks that are not hazardous at the time of discovery and are not expected to become hazardous within the scheduled repair period. These leaks will be scheduled for permanent repair within one year, (1 yr.), of discovery.

During the scheduled repair period, these leaks will be re-evaluated on a six-month, (6 mo.), interval or by the end of the calendar year of discovery, whichever occurs first. These leaks will be re-classified as necessary.

#### **Reporting/Notification**

A record of each leakage survey, and any leaks discovered shall be reported on one or both of the following forms, as appropriate:

Form 4010, Report of Breaks, Leaks, and Damages  
Form 10000, Leakage Survey

All leak repairs shall be recorded on Form 6000, General Pipeline Repair.

**Related Procedures**

50 Pipeline Markers  
110 General Pipeline Repair  
130 Welding Procedure And Welder Test Procedure  
220 Record Keeping

**PROCEDURE 50 – PIPELINE MARKERS****Scope and Purpose**

This procedure is to ensure the safe operation of the pipeline system by installing and maintaining line markers as required by 49 CFR § 192.707.

**Responsibility**

The Supervisor is responsible to ensure that all pipeline markers are properly installed and maintained.

**Personnel Safety**

There are no special personnel safety issues.

**Equipment and Materials**

Approved line markers.

**Instructions**

This activity is a covered task under the RGT Operator Qualification Plan and may only be performed by or directed and observed by an individual who is currently qualified to perform this procedure. Refer to the RGT OQ Plan for specific qualification requirements.

**Inspection Frequency**

Line markers must be inspected, and replaced as necessary, during regularly scheduled pipeline system patrolling.

**Line Marker Terminology**

Line markers will bear the terminology "WARNING", "CAUTION" or "DANGER" followed by "GAS PIPELINE". This required line marker terminology will have letters of one inch, (1"), in height and a one-quarter inch, (1/4"), stroke. Additionally, The operator name and telephone number (including area code) where the operator can be reached at all times must also be adhered to the line markers.

**Line Marker Placement**

Line markers must be placed along the RGT transmission facility and at each railroad and public road crossing. These line markers are to be placed in such a manner as to not interfere with train/vehicular traffic or public conveyance and where damage or removal is minimized.

Line markers will also be placed in a "line-of-sight" fashion along the RGT transmission pipeline in all other areas to protect the pipeline from damage and in areas where the pipeline is accessible to the public.

Line markers will also be placed and maintained where pipeline facilities are located above

ground in Class 1 areas where these locations are accessible to the public.

Where known encroachments that could affect the safety of the pipeline are anticipated or in progress near pipeline facilities, the pipeline shall be located and the route conspicuously indicated by markers having the above characteristics. The encroaching party shall be notified of the presence of the pipeline where possible.

#### **Reporting/Notification**

Form 11000 will be completed during Patrolling efforts to include examination/placement of line markers, and maintained for the appropriate period. Damaged line markers must be scheduled for replacement at the earliest opportunity.

#### **Related Procedures**

30 Pipeline Patrolling

220 Record Keeping

### **PROCEDURE 60 – PRESSURE LIMITING AND REGULATING STATIONS - INSPECTION AND TESTING**

#### **Scope and Purpose**

The purpose of this procedure is to ensure safe and proper inspection, testing and maintenance of pressure regulating stations and associated relief devices as required by 49 CFR § 192.739, 741 and 743.

#### **Responsibility**

The Supervisor is responsible for ensuring that all regulator station inspection, testing and maintenance is performed according to the provisions of this procedure.

#### **Personnel Safety**

All personnel are to use proper protective clothing/equipment when performing regulator station operations and maintenance.

#### **Equipment and Materials**

All personnel are to utilize proper testing tools, materials and equipment required for regulator station operations and maintenance.

#### **Instructions**

This activity is a covered task under the Operator Qualification Plan and may be only be performed by or directed and observed by an individual who is currently qualified to perform this procedure. Refer to the OQ Plan for specific qualification requirements.

#### **Gauges and Permanent Recording Charts**

Calibrated gauges shall be installed and maintained at the regulator station. A calibrated permanent recording chart may also be utilized.

#### **Marking of Permanent Recording Charts**

All permanent recording chart elements (paper) installed shall be marked as follows:

1. Start and end dates.
2. Start and end times.

Additional information to be recorded on chart elements may include:

1. Pressure adjustment dates and times.
2. Clock stoppage.
3. Indication of abnormal pressure drop or pressure increase, especially those outside of design limits. (Alert the Supervisor immediately).

All permanent recording chart elements shall be reviewed by the Supervisor as soon as is practicable and maintained for the useful life of the facilities.

All chart readings outside of design limits will be investigated immediately.

### **Regulator Station Inspection**

The regulator station, including monitors and associated relief devices shall be inspected and maintained at intervals not exceeding fifteen (15) months, but at least once each calendar year. This procedure shall include, but not be limited to, the following:

#### **Visual Inspection**

1. Corrosion - including evidence of rust, pitting and any need of painting/coating.
2. Damage - physical damage to facility including enclosure and surroundings.
3. Leakage - including all piping and components.
4. Dirt/Debris - accumulation on or around facility.
5. Valve Locks - In place, locked and operational.
6. Valves - lubricate and operate.
7. Control Lines - secure and leak tight connections.
8. Gauges and/or Charts.
9. Facility Warning Signage - correctly placed and legible.
10. Enclosure and Grounds - condition of paint, appearance of property.

#### **Operational Inspection**

1. Record all inlet, intermediate, and outlet pressures using calibrated gauges.
2. Verify that each regulator is operating properly and that lockup may be achieved.
3. Bypass the regulator station, as necessary to perform any required repairs.
4. Restart the regulator station after each bypassing scenario leaving all valves in normal operating positions.
5. Ensure that the regulator station is set to proper operating pressures and that the required capacity can be delivered.
6. Lock all valves and the station enclosure.
7. Where feasible, the relief devices shall be tested in place. Where in-place tests are not feasible, a review and calculation of the required capacity of the relieving device at each station shall be made and the required capacities compared with the rated or experimentally determined relieving capacity of the device for the operating conditions under which it works. If it is determined that the relieving device is of insufficient capacity, a new or additional device shall be installed to provide the additional capacity required.
8. For a pressure relief valve or pressure-limiting device having a stop valve that could make it inoperative, measures shall be taken to prevent unauthorized operation of such stop valve.
9. The set pressure of relief valves shall be such that the pressure will not exceed the maximum allowable operating pressure plus ten percent (10%) or the pressure that produces a hoop stress of seventy-five percent (75%) of SMYS, whichever is lower.

**Reporting/Notification**

Inspections of relief valves, pressure limiting equipment and pressure regulating equipment shall be reported on Form 14000, Pressure Regulator Control Valve, and Relief Valve Inspection.

**PROCEDURE 70 – PIPELINE LOWERING**

Prior to any displacement of a pipeline from its existing position, a specific plan must be developed by an engineer for this activity. This plan must include the length of pipe that can safely be relocated, the method for the movement procedure, and the actions that will need to be taken in order to protect company personnel and the public from any danger. Information needed from the field in order for the engineer to complete the analysis and methodology will be supplied by operations personnel.

Operations personnel must follow the plan and procedure developed by the engineer when the pipeline is lowered or relocated.

**Reporting/Notification**

Records of installations and copies of as-built drawings will be retained in the office.

**PROCEDURE 80 – PREVENTION OF ACCIDENTAL IGNITION****Scope and Purpose**

This procedure is to ensure the prevention of accidental ignition of gas as required by 49 CFR § 192.751.

**Responsibility**

All RGT employees are responsible for ensuring the prevention of accidental ignition of gas according to the provisions of this procedure.

**Personnel Safety**

All RGT personnel are to utilize proper protective clothing/equipment when performing pipeline system operations and maintenance functions in the presence of a gaseous atmosphere.

**Equipment and Materials**

All RGT personnel are to utilize proper repair tools, materials and equipment required for all pipeline system operations and maintenance functions, including grounding straps and fire extinguishers in order to prevent accidental ignition of natural gas. Additional equipment may include, but not be limited to:

Flame Ionization Detector (FID)  
Combustible Gas Indicator (CGI)  
Intrinsically Safe Electrical Tools  
Flame Retardant Clothing  
Warning Signs  
Air Tools

In all cases, each readily accessible ignition source will be eliminated at the earliest

opportunity. However, it should be understood that, in order to assess the magnitude of any gas leakage scenario an initial determination must be made as to gas levels prior to ignition source elimination.

### **Instructions**

This activity is not a covered task under the RGT Operator Qualification Plan.

### **Additional Requirements**

1. Smoking and open flames are prohibited in and around areas and structures containing gas facilities where the potential for gas release, or hazard of fire or explosion exists.
2. Proper warning signs shall be posted defining the locations of these areas and structures.
3. Such signage shall serve to alert individuals of all "No Smoking/Open Flame" areas prior to entry or approach.
4. All electrically powered tools and equipment shall be intrinsically safe for operation in a combustible/explosive atmosphere. Explosion proof plugs and receptacles shall also be used, (NFPA 70/ANSI C1, Class I, Group D).
5. Air powered tools are preferred when working in potentially combustible/explosive atmospheres.
6. All torch cutting and arc welding procedures where facilities are to be separated, including mechanical separations, shall be accomplished using proper metallic grounding cables and screw-clamps in order to avoid static arcing.
7. A portable combustible gas indicator, (CGI), shall be used before and during all welding, cutting and mechanical separation work.
8. No gas facilities will be intentionally exposed to the possibility of any ignition source when a combustible gas-to-air mixture is known to exist, including welding and/or cutting.

### **Related Procedures**

130 Welding Procedure And Welder Test Procedure

170 Abandonment of Pipeline Facilities

## **PROCEDURE 90 – SAFETY-RELATED CONDITIONS/REPORTING**

### **Scope and Purpose**

This procedure describes how to identify and report any known hazardous conditions that may exist, acquaint appropriate operating and maintenance employee's with the procedures, establish a continuing educational program to enable employees to recognize and report any condition that may represent a hazardous condition with particular attention given to highway and railway crossings and buildings intended for human occupancy or outdoor places of assembly that are in close proximity to gas facilities. This procedure complies with 49 CFR § 192.605(d) requirements.

### **Responsibility**

All RGT personnel.

### **Personnel Safety**

There are no special personnel safety issues associated with this procedure.

### **Equipment and Materials**

No special equipment or materials are required.

**Instructions**

This is not a covered task under the Operator Qualification Plan.

**Frequency**

Recognizing and reporting safety-related conditions is an ongoing requirement.

**Procedure**

All personnel shall report any of the following safety-related conditions of pipelines in service.

1. General or localized corrosion and/or pitting to a point failure may occur and/or where wall thickness is less than that required for the maximum operating pressure.
2. Any unintended pipeline movement resulting from flood, landslide, or earthquake which may jeopardize serviceability.
3. Any physical or material defect that may affect the integrity of the pipeline.
4. Any abnormal operation that creates a pipeline pressure that exceeds one hundred ten percent (110%) of its maximum allowable operating pressure.
5. Any leak on the pipeline that constitutes an emergency.
6. A safety-related condition that constitutes an immediate hazard, which causes a direct or indirect remedial action by an operator; such as loss or over-pressure which initiates a pipeline shutdown.

A written Safety-Related Condition Report must be filed, by the President with DOT, the COPUC, and the NMPRC, unless the condition:

1. Involves pipelines that are more than two hundred and twenty (220) yards from a building with an intended use of human occupancy, outdoor place of assembly, except for reports required at locations within the right-of-ways of railroads, paved roads, streets or highways, or sites onshore and offshore where pollutants may contaminate any stream, river, lake, reservoir or other body of water.
2. Any accident that is required to be reported in Part 191.23 or results in such an accident before the deadline for filing the safety-related condition.
3. Is corrected by repairs or replacement before the deadline for filing safety-related conditions report, with exception of all conditions where wall thickness is less than that required for the maximum operating pressure of the pipeline.

**Filing of Safety-Related Condition Reports**

Safety-related conditions shall be filed in writing by the President within five (5) working days after it has been determined that a safety-related condition exists, but in no case no later than ten (10) working days after the discovery of the said condition. Copies of reports will be retained in the office.

Reports shall be addressed as a "safety-related condition" and contain the following data:

3. Name and address of operator.
2. Name, address, phone number of person(s) submitting the report.
3. Date of report.
4. Name, phone number, address of individual that determined condition exists.
5. Date the safety-related condition was discovered and date condition first existed.
6. Location of condition.
7. Description of condition and cause and effect of said condition.
8. Corrective measures taken.



**Reporting/Notification**

All reports are to be made using Form 4020, Safety-Related Conditions Record, and are to be sent to the addresses listed therein.

**Related Procedures**

5 Abnormal Operating Conditions

140 Investigation of Failures

180 Emergency Plan

**IV. MAINTENANCE****PROCEDURE 100 – TAPPING PIPELINES UNDER PRESSURE****Scope and Purpose**

The purpose of this procedure is to ensure safe tapping/stopping of transmission and main facilities under pressure as required under 49 CFR § 192.627.

**Responsibility**

The Supervisor is responsible for ensuring that all tapping and stopping procedures are performed according to the provisions of this procedure and only by individuals qualified to operate tapping and stopping equipment.

**Personnel Safety**

All personnel are to utilize proper protective clothing/equipment when performing tapping and stopping of pipelines under pressure.

**Equipment and Materials**

Only tapping and stopping equipment that is rated for the operating pressure of the facility to be tapped or stopped off may be used. RGT will utilize contract personnel for tapping the transmission facility, as necessary.

**Instructions**

This activity is a covered task under the RGT Operator Qualification Plan and may only be performed by or directed and observed by an individual who is currently qualified to perform this procedure. Refer to the RGT OQ Plan for specific qualification requirements.

**Requirements**

Each tap or stopping function must be performed according to the equipment manufacturer specifications with respect to the operating pressure of the subject pipeline facility. Each welded branch connection shall be designed and reinforced so that the strength of the pipeline system is not reduced, taking into account the stresses in the remaining pipe wall due to the opening in the pipe or header, the shear stresses produced by the pressure acting on the area of the branch openings, and any external loading due to thermal movement, weight and vibration

During periods of high gas pressure/flow, consideration should be given to reduction of pressure in order to safely achieve a successful tap or stop off.

All taps shall be made in a straight section of pipe, and a sufficient distance from a change in direction such that secondary stresses are not imposed on the tap by main line movement.

Taps shall not be made through circumferential welds.

The longitudinal pipe seam shall be positioned as far away as possible from the area into which the hole is to be cut.

The pipe to be tapped shall be free of significant external corrosion. A non-destructive inspection shall be made to ensure adequate wall thickness and the absence of lamination.

Pipelines operating in excess of two hundred (200) degrees Fahrenheit or carrying oxygen-rich products shall not be tapped.

Tap size shall not be more than one-half ( $\frac{1}{2}$ ) the nominal size of the line being tapped.

The nozzle shall be made from pretested pipe; it shall be cut to the proper length and shaped to conform to the contour of the pipe. The nozzle-to-carrier weld is to be a complete full-penetration weld.

After the nozzle has been welded to the carrier pipe and the tap valve bolted on, the assembly shall be hydrostatically tested for one hour.

Whenever weld fittings are used to perform taps or stop off procedures, only personnel qualified under API 1104 and the RGT welding procedure may perform such welds.

The test pressure shall be equal to the gas pressure in the carrier pipe plus fifty (50) psig.

The tapping machine shall be operated through its full travel before it is bolted in place. Measurements shall be made to ensure the following:

1. Machine has adequate travel to cut and retain coupon.
2. Cutter will clear tap valve and nozzle.
3. Tap valve can be closed when machine with cutter and adapter is bolted to valve.

The tapping machine shall have a valve of adequate size so that it can be purged with gas when pilot bit cuts through carrier pipe, and gas can be quickly bled off machine when operation is complete and tap valve closed.

Under no circumstances shall tapping machines equipped with an air motor be operated with natural gas.

A concrete foundation must be provided for the tap valve if the tap is made in a horizontal position.

A post work leakage survey should be performed for a minimum distance of 50 feet in both directions from the tap/stop off point in order to detect any hazardous leakage.

#### **Reporting/Notification**

Records shall be established for each hot tap and shall include the following information:

1. Location of hot tap. Description of all materials used.
2. Copy of hydrostatic test report on pipe from which the nozzle was fabricated.
3. Hydrostatic test report on pre-tapping test.

All hot tapping records are to be retained in the office for the life of the pipeline system on which the tap was made. Tap installations shall be reported on Form 7000, Field Tap Report.

**Related Procedures**

Availability of Construction Records & Operating History to Personnel  
Excavation Safety  
40 Leakage Surveys  
80 Prevention of Accidental Ignition  
110 General Pipeline Repair  
130 Welding Procedure And Welder Test Procedure  
220 Record Keeping

**PROCEDURE 110 – GENERAL PIPELINE REPAIR****Scope and Purpose**

This procedure is to ensure the safe and proper general repair of transmission pipeline systems as required by 49 CFR § 192.711 through 719, 243, 245, and 309.

**Responsibility**

The Supervisor is responsible for ensuring that all pipeline system repairs are performed according to the provisions of this procedure.

Each defect or damaged pipeline segment that impairs serviceability or may poses a hazard to the public or the environment will be repaired, replaced or taken out of service at the earliest opportunity following discovery.

**Personnel Safety**

All personnel are to utilize proper protective clothing/equipment when performing pipeline system repairs.

**Equipment and Materials**

All personnel are to utilize proper repair tools, materials and equipment required for each type of system repair.

**Instructions**

This activity is a covered task under the RGT Operator Qualification Plan and may only be performed or directed and observed by an individual who is currently qualified to perform this procedure. Refer to the RGT OQ Plan for specific qualification requirements.

**Qualification of Welding Process**

Welding shall be performed in accordance with an approved welding procedure that is tested and qualified in accordance with Section 2 of API Standard 1104. Each welding procedure shall be recorded on a Welding Procedure form in order to indicate the results of the procedure.

**Qualification of Welders**

All persons qualifying to weld on RGT facilities must be qualified in accordance with Section 6 of API Standard 1104 and Appendix C of 49 CFR Part 192, Sections II and III. Completed Welder Qualification Forms shall be maintained at the office.

**Requirements**

Any leak, imperfection, or damage found on the pipeline shall be removed from or permanently repaired by an approved method. If permanent repair is not feasible at the time of discovery, immediate temporary measures shall be employed to protect the public and property. As soon as feasible, permanent repairs shall be made, replacing the temporary repair.

A bonding conductor installed across points where the pipeline is to be separated and the bond maintained while the pipeline is separated shall be installed prior to commencement of repair work.

#### **Permanent Field Repair of Imperfections and Damage**

Each imperfection or damage of a line must be repaired as follows:

1. If it is feasible to take the pipeline out of service, the imperfection or damage shall be removed by cutting out a cylindrical piece of pipe and replacing it with pipe of similar or greater design strength for the conditions of use.

If it is not feasible to take the pipeline out of service, a full encirclement welded split sleeve of appropriate design may be applied over the imperfection or damage.

If the segment is not taken out of service for repairs, the operating pressure shall be reduced to a safe level during the repair operations. Where a reduction in pressure is required during the repair, calibrated gauges shall be used for monitoring the pressure against an accidental pressure buildup.

2. Surface imperfections or damaged steel pipe, such as gouges, grooves and arc burns, may be repaired by grinding if the entire imperfections or damage is removed and the remaining wall thickness is at least equal to either:

- a) The minimum thickness required by the tolerances in the specification to which the pipe was manufactured.
- b) The nominal wall thickness required for the design pressure of the pipeline.

3. The following dents shall be removed from steel pipe to be operated at a pressure that produces a hoop stress of twenty percent (20%), or more, of SMYS:

- a) A dent that contains a stress concentrator such as a scratch, gouges, groove, or arc burn.
- b) A dent that affects the longitudinal weld or a circumferential weld.

4. The following dents shall be removed from steel pipe to be operated at a pressure that produces a hoop stress of forty percent (40%), or more, of SMYS:

- a) A dent that has a depth of more than one-quarter inch ( $\frac{1}{4}$ ") in pipe eight inches (8") or less outside diameter.

For the purpose of these procedures, a dent is defined as a depression that produces a gross disturbance in the curvature of the pipe wall without reducing the pipe wall thickness. The depth of a dent is measured as the gap between the lowest point of the dent and an extension of the original contour of the pipe.

A gouge, groove, arc burn, or dent may not be repaired by insert patching or by pounding out. Each gouge, groove arc burn or dent that is removed from a length of pipe shall be removed by cutting out the damaged portion as a cylinder and replacing it with pipe of similar or greater design strength for the conditions of use.

#### **Permanent Field Repair or Welds**

Each weld in a pipeline that is found to contain defects or which is otherwise unacceptable

under the non-destructive testing requirements of API 1104 shall be removed or repaired. When a weld is removed, it shall be cut out as a cylinder and replaced with pretested pipe of similar or greater design strength for the conditions of use. The weld may be repaired if the defect is removed down to clean metal and the segment to be repaired is preheated.

A weld may be repaired while the line is in service if:

1. The weld is not leaking.
2. The pressure is reduced so that it does not produce a stress that is more than twenty percent (20%) of the specified minimum yield strength of the pipe; and
3. Grinding of the defective area can be limited so that at least one-eighth inch ( $\frac{1}{8}$ ") thickness in the pipe weld remains.

Repaired areas shall be non-destructively tested and meet at least the same quality requirements as required for a new weld. No further repairs shall be made to a repaired area. A repaired area found unacceptable by non-destructive testing shall be cut out as a cylinder and replaced with pretested pipe of similar or greater design strength for the conditions of use. Replacement pipe used for a repair cylinder must be pressure tested to the pressure required for a new line installed in the same location. The test must be made on the pipe prior to use, provided that non-destructive tests are performed on the field girth butt welds that were not strength tested.

If it is not feasible to take the pipeline out of service or to repair the defective weld by welding, a full encirclement welded split sleeve of appropriate design may be installed.

No circumferential butt welds containing cracks shall be repaired. If a crack is found in a circumferential butt weld, the entire weld shall be cut from the pipeline as a cylinder and replaced with pipe of similar or greater design strength for the conditions of use.

#### **Permanent Field Repair of Leaks -**

##### **Leaks Requiring Immediate Repair**

Leaks requiring immediate repair shall be of such a nature that immediate shutdown and blowdown of a segment of the transmission system is necessary in order to effect repairs. When determining the necessity for making an immediate repair, consideration shall be given to the nature and extent of the leak; its proximity to a heavily populated area, place of human habitation or activity; potential sources of ignition; and any immediate hazards.

Repair of leaks requiring immediate repair shall be made by cutting out a cylindrical piece of pipe or removing the leaking segment and installing pretested pipe or replacement item, which meets with the present design requirements of the leaking facility. Replacement pipe used for a repair cylinder must be pressure tested to the pressure required for a new line installed in the same location. The test must be made on the pipe prior to use, provided that non-destructive tests are performed on the field girth butt welds that were not strength tested.

Where it is not feasible to take a leaking segment of pipeline out of service or effect repairs by other suitable means, repair may be made by installing a full encirclement welded split sleeve of appropriate design.

##### **Elimination of Minor Leaks**

Minor leaks shall be eliminated by appropriate corrective action such as installing a leak clamp, tightening flange bolts, adjusting packing glands, lubricating valves, replacing blanking plug gaskets, etc.

**Reporting/Notification**

Complete Form 6000, General Pipeline Repair for each piping repair. Specific repair type and components used must be specified on the Form. Location of repairs shall also be documented.

**Related Procedures**

Construction

80 Prevention of Accidental Ignition

130 Welding Procedure And Welder Test Procedure

170 Abandonment of Pipeline Facilities

**PROCEDURE 120 – VALVE MAINTENANCE****Scope and Purpose**

This procedure is to ensure the safe and proper operation of valves, which may be required during an emergency as well as during normal operations under 49 CFR § 192.745.

**Responsibility**

The Supervisor is responsible for ensuring that all block valves intended for emergency and normal operations of the RGT transmission system are inspected according to the provisions of this procedure.

**Personnel Safety**

All personnel are to use proper protective clothing/equipment when valve inspection and maintenance.

**Equipment and Materials**

Refer to the valve manufacturer's literature for required equipment and materials.

**Instructions**

This activity is a covered task under the RGT Operator Qualification Plan and may only be performed by or directed and observed by an individual who is currently qualified to perform this procedure. Refer to the RGT OQ Plan for specific qualification requirements.

**Requirements**

Main line block valves, tap valves and any other valves that might be required during an emergency shall be inspected and partially operated once annually, not to exceed a time period of fifteen (15) months. These inspections shall include normal maintenance, adjustment, and lubrication, with each valve being fully or partially operated, where possible. Any conditions found that might interfere with the proper operation of the valve shall be reported and the conditions corrected.

Emergency Valves include all valves that would be utilized in an emergency situation to isolate segments of pipelines, process stations, or foreign stations in the event that a blow down is necessary.

All emergency valves must be kept in good working condition. Maintenance procedures on such valves and related equipment shall be based upon recommendations of the manufacturer.

At the completion of maintenance, all valves shall be returned to the original operating positions.

When the opening or closing of a valve that might be required in an emergency is necessary to perform maintenance on the valve, permission shall be obtained from Supervisor before opening or closing the valve.

Valve boxes or pits shall be maintained in good condition and kept clear of debris or other obstructions that would interfere with access to, or proper operation of, the valve.

#### **Valve Reconditioning -**

Block valves may be reconditioned as long as the manufacturer's procedures for valve disassembly and re-assembly are followed. These records will be kept on file.

The altering of valves in any way including machining or any other way of compromising the integrity of the valve will not be permitted.

In every disassembly process, the valve will be checked for any defects or excessive wear. Replacement components shall be ordered from the manufacturer and installed according to the manufacturer's instructions.

It is necessary to soak the valve in solvent once disassembled in order to remove lubricant, paint, grease, and any other extraneous substances.

Proceeding every re-assembly, strength testing must be performed in accordance with API 6D, Section 5 (1994).

#### **Reporting/Notification**

Each inspection of block valves, and repairs made to these valves and/or operators, shall be reported on Form 15000, Valve Maintenance and Inspection Record.

#### **Related Procedures**

- 10 Continuing Surveillance
- 30 Pipeline Patrolling
- 40 Leakage Surveys
- 80 Prevention of Accidental Ignition
- 110 General Pipeline Repair
- 130 Welding Procedure And Welder Test Procedure
- 200 External Corrosion Control - Monitoring
- 220 Record Keeping

### **PROCEDURE 130 – WELDING PROCEDURE AND WELDER TEST PROCEDURE**

#### **Scope and Purpose**

This procedure establishes criteria for qualification of a pipeline welding process and qualification of persons performing welding procedures according to the established process in 49 CFR Subpart E, *Welding of Steel in Pipelines*, and API Standard 1104, *Standard for Welding Pipelines and Related Facilities*. All definitions and materials references comply with the provisions of Section 5 of API Standard 1104, (19<sup>th</sup> ed.).

#### **Terms and Abbreviations**

- API – The American Petroleum Institute
- NPS – Nominal pipe size
- Miter – Beveling the ends of pipe and/or weld fittings

Transverse segment – The remaining portion of a weld fitting after mitering.

#### **Responsibility**

The Supervisor is responsible for ensuring that all pipeline welding is performed according to the provisions of this procedure.

Weld defects that impair pipeline serviceability or may pose a hazard to the public or the environment will be repaired or replaced at the earliest opportunity following discovery.

#### **Personnel Safety**

All welding personnel are to utilize proper protective clothing/equipment when performing pipeline system welding.

#### **Equipment and Materials**

All welding personnel are to utilize proper welding equipment, tools and required for each pipeline weld according to **Tables 1, 2** and the provisions of Section 1 of API Standard 1104.

#### **Instructions**

This activity is a covered task under the RGT Operator Qualification Plan and may only be performed or directed and observed by an individual who is currently qualified to perform this procedure. Refer to the RGT OQ Plan for specific qualification requirements.

#### **Qualification of Welding Process**

Welding shall be performed in accordance with an approved welding procedure that is tested and qualified in accordance with Section 2 of API Standard 1104. Each welding procedure shall be recorded on a Welding Procedure form in order to indicate the results of the procedure.

#### **Qualification of Welders**

All persons qualifying to weld on RGT facilities must be qualified in accordance with Section 6 of API Standard 1104 and Appendix C of 49 CFR Part 192, Sections II and III. Completed Welder Qualification Forms shall be maintained at the office.

#### **Limitations on Welders**

After initial qualification, no welder may weld using a particular welding process unless, within the preceding six, (6), calendar months, the welder has performed welding utilizing that process and has had one, (1), production weld tested and found acceptable under Section 3 or 6 of API Standard 1104.

#### **Production Welding**

Welding of pipe shall be accomplished using the fixed position method. Welding of fittings may be accomplished using either the fixed position or the roll method.

All RGT transmission piping shall be butt-welded using the shielded electric arc process. All fillet welds shall be accomplished using the shielded electric arc process.

#### **Weather Conditions**

During inclement weather, appropriate material shielding equipment shall be utilized in order to protect the work area. Should inclement weather prohibit the continuance of work, the welding operation shall be discontinued.



### **Preparation of Weld Joint**

All surfaces to be welded shall be smooth, uniform, free of laminations, tears, scale, slag, grease, paint and other deleterious materials, which might adversely affect the welding process.

**Miter Joints** – Factory manufactured weld elbows or transverse segments may be used for changes in direction provided the arc length measured along the fitting crotch is at least one inch, (1"), for pipe sizes of two inch, (2"), NPS and larger. (ANSI B31.8, Section 841.233).

The use of miter joints shall not be permitted as a means of changing alignment with the exception of deflections of less than twelve and one half degrees, ( $< 12 \frac{1}{2}^{\circ}$ , at  $\geq 10\%$  but  $< 30\%$  of SMYS) that is caused by misalignment at a tie-in where one section is anchored, and/or wherever the minimum crotch arc length of at least one inch, (1"), cannot be maintained for factory manufactured weld elbows or transverse segments. Whenever pipe sections are not anchored and can be uncovered and properly aligned, no miter joints shall be permitted (a deflection of one degree, ( $1^{\circ}$ ), shall not be considered a miter joint and therefore is permissible).

**Alignment** – Welders shall ensure that pipe ends are aligned to produce an acceptable weld. Pipe ends that cannot be properly aligned, (unequal wall thickness, out-of-roundness, out of square landings, etc.), shall be corrected or removed. (Refer to **Figure 1 and 2**).

**Beveling** – All beveling shall be conducted in accordance with Section 4.4 of API Standard 1104. Any bevel made by oxygen acetylene cutting must be properly cleaned and all oxide formation removed by hammer and chisel, file, brush or other suitable methods. Welders shall use an approved beveling machine when performing a beveling procedure for pipe. (Refer to **Figure 1 and 2**).

**Lineup Clamps** – External lineup clamps shall be used for all butt-welds on pipe except that tack welds may be used where the geometry of the weld does not permit lineup clamp use. When external line up clamps are used, they must be left in place until a minimum of fifty percent (50%) of the stringer bead, half of which shall be diametrically opposite the other half, has been completed. Spacing tools shall be used in conjunction with line-up clamps to assure proper joint spacing and to permit full weld penetration.

**Rotation of Seams** – Electric weld pipe shall be aligned so that the longitudinal seams will be located on either side surface of the line within thirty (30) degrees of horizontal. Successive joints of pipe shall be rotated to the right or left not less than twenty (20) degrees or have seam located on opposite side to avoid aligning seams on adjacent joints. Longitudinal seams on pipe bends, however, shall be located ninety (90) degrees from the radius of the bend. On bends requiring more than one (1) joint of pipe, longitudinal seams shall be located one hundred and eighty (180) degrees from each other.

**Grounding** – Welding machine ground leads shall be fastened securely during work using setscrew clamping or other mechanical apparatus.

**Quenching** – Quenching of welds for cooling purposes shall not be permitted.

**Weld Beads** – All weld beads shall conform to the requirements of API Standard 1104, Sections 4.7 – 4.9. Four (4) or more beads shall be used on pipe having a thickness greater than one-quarter inch ( $\frac{1}{4}$ "). The second bead, or hot pass, shall be applied immediately after the stringer bead. The hot passes shall be completed up to and including the last completed stringer bead whenever the stringer welding is stopped for any reason and at the end of the

day's work. No two (2) succeeding passes shall start or stop at the same point. All beads are to be made starting the pass near the top of the pipe and proceeding downward on each side of the pipe to the bottom. With manual, shielded metal-arc butt welds, pipe with a wall thickness of one-quarter inch (1/4") and less shall have three (3) weld beads. On any land-laid section of line not more than an interval of ten (10) joints shall separate the hot pass welding and the filler and cap welding processes. This interval may be reduced by an RGT Inspector if it is deemed that weather or other conditions warrant.

**Inspection and Testing of Welds** – Each complete weld shall be visually inspected by either the welder or another qualified welder to ensure that the weld meets the requirements of the process and also meets the requirements of API Standard 1104, Section 6. Supplemental welding inspectors that are qualified under this Welding Procedure and the RGT OQ Plan may be used to visually inspect welds.

**Repair/Removal of Defects** – All repair/removal of defective welds shall be accomplished according to the provisions of API Standard 1104, Section 7.

**Weld Beads** – RGT shall prevent arc burns. Arc burns shall be repaired by completely removing the notch by grinding if the grinding does not reduce the remaining wall thickness to less than the minimum thickness required by the tolerances in the specification to which the pipe is manufactured. If a notch is not repairable by grinding, a cylinder of the pipe containing the entire notch must be removed. A repaired arc burn will be inspected RGT with any ammonium persulfate test.

**Combustible Mixtures** – No welding will take place on facilities that contain a combustible gas-to-air mixture.

#### **Reporting/Notification**

The details of each welder qualification test shall be recorded on Form 16000, Welder Qualification Report. This record shall show complete results of the procedure qualification tests. The welder qualification test record may also serve as a procedure qualification for manual shielded-arc butt and branch welds, providing that the number of welders and electrical data for the procedure are noted on the form. Similar records shall be made for all weld methods employed whether in field or shop construction. Strict compliance with these procedures shall be required during construction except where a change is specifically authorized by RGT and its qualification recorded.

Complete Form 6000, General Pipeline Repair for each weld and/or weld repair. Specific repair type and components used must be specified on the form. Location of repairs shall also be documented. All welding records will be retained in the office.

#### **Related Procedures**

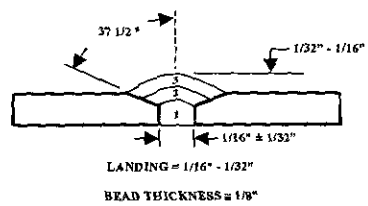
Construction

80 Prevention of Accidental Ignition

110 General Pipeline Repair

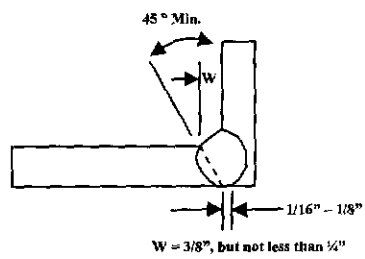
170 Abandonment of Pipeline Facilities

**FIGURE 1**  
**Butt Weld Joint**



**FIGURE 2**

**Branch Weld Joint**



**TABLE 1 – Filler Materials**

<b>AWS Electrode Classification</b>	<b>Manufacturer Designation</b>	<b>Current and Polarity</b>
<b>E 6010</b>	<b>1/8" Lincoln APCI 610-6-60 5P+ or comparable</b>	<b>DCV, Reverse Polarity</b>

**TABLE 2 – Power Specifications**

<b>Bead Number</b>	<b>Amperage</b>	<b>Voltage</b>	<b>Speed of Travel</b>
<b>1</b>	<b>70 - 110 amps</b>	<b>16 – 24 DCV</b>	<b>10 – 17 in./min.</b>
<b>2</b>	<b>70 - 110 amps</b>	<b>16 – 24 DCV</b>	<b>10 – 17 in./min.</b>
<b>3</b>	<b>70 - 110 amps</b>	<b>16 – 24 DCV</b>	<b>10 – 17 in./min.</b>
<b>4</b>	<b>70 - 110 amps</b>	<b>16 – 24 DCV</b>	<b>10 – 17 in./min.</b>

## **PROCEDURE 140 – INVESTIGATION OF FAILURES**

### **Scope and Purpose**

This purpose of this procedure is to establish the requirements for analyzing pipeline failures and to mitigate recurrence as required under 49 CFR § 192.617.

### **Responsibility**

The Supervisor is responsible to ensure that initial assessment of failures is performed using appropriate judgment and that all fittings and materials involved in the subject failure are submitted to the proper agency for analysis.

The Supervisor is also responsible for initiating a detailed analysis of failures that may require submittal of a written report to regulatory and/or code enforcement agencies.

### **Personnel Safety**

All personnel are to utilize proper protective clothing/equipment when performing pipeline system operations and maintenance functions.

### **Equipment and Materials**

All personnel are to utilize proper repair tools, materials and equipment required for all pipeline system operations and maintenance functions.

### **Instructions**

This activity is not a covered task under the RGT Operator Qualification Plan.

### **Inspection Steps**

Each failure or incident shall be treated with the same degree of significance regardless of the magnitude of potential or actual damage and with respect to the necessity for minimizing recurrence. The Supervisor shall initiate an assessment of a failure or incident scenario that shall include, but not be limited to:

- 1) Repair and restoration of gas service in the case of a routine fitting or material failure.
- 2) Preservation of all potential evidence that may be used in an investigation of the failure or incident.
- 3) Protection of human life and property.
- 4) Photographic documentation.
- 5) Interview of participants and witnesses.
- 6) Development of an event oriented log or record.
- 7) Implementation of the Emergency Plan, as necessary.

All failed fittings and materials shall be catalogued, inventoried and examined by the Supervisor. Examination should include determination of the circumstances leading to the cause of failure and review of any similar failures that might indicate developing trends.

All fittings and materials exhibiting active external or internal corrosion shall be examined by an individual qualified to perform such an examination.

Where appropriate, the Supervisor should contact a third party testing laboratory when the subject product(s) are to be subjected to destructive testing and/or failure analysis.

Damaged and/or failed gas facilities should be placed into Fire Department custody whenever persons have been injured and/or property has been damaged. These specimens shall be submitted for damage/ failure analysis to an American Gas Association, (AGA), recognized laboratory at the request of RGT.

### **Reporting/Notification**

A record of each fitting or material failure and associated investigation/results is to be completed and maintained at the office.

### **Related Procedures**

5 Abnormal Operating Conditions

20 Startup/Shutdown/Purging

80 Prevention Of Accidental Ignition

90 Safety Related Conditions/Reporting

110 General Pipeline Repair

180 Emergency Plan

190 Examination of Exposed Pipe And Determination Of Remaining Strength

220 Record Keeping

## **PROCEDURE 150 – CHANGES IN CLASS LOCATION**

### **Scope and Purpose**

This procedure is to ensure the safe operation of the RGT pipeline system by periodically performing Class Location Change study as required by 49 CFR § 192.609 and 611.

### **Responsibility**

The Supervisor is responsible to ensure that all pipeline system patrolling is performed according to the provisions of this procedure and that proper records are maintained.

### **Personnel Safety**

There are no special personnel safety issues.

### **Equipment and Materials**

Personnel may elect to mapping and photographic equipment during these efforts.

### **Instructions**

This activity is a covered task under the Operator Qualification Plan and may only be performed by or directed and observed by an individual who is currently qualified to perform this procedure. Refer to the RGT OQ Plan for specific qualification requirements.

### **Requirements**

Continuing surveillance of a six hundred sixty-foot (660') width on each side of the pipeline right-of-way shall be maintained in order to verify or initiate changes in class location. New construction of homes, apartment buildings, public buildings, school buildings, factories, commercial buildings, churches, mobile homes, and other buildings or structures intended for human occupancy that are located within six hundred sixty feet (660') of the pipeline shall be observed and reported on Form 3000, Changes In Class Location. Particular effort shall be made to report the construction of buildings and small well-defined outside areas such as playgrounds, recreation areas, outdoor theaters, and other places of public assembly within thirty feet (30') of the pipeline that are subject to being occupied by twenty (20) or more persons during normal use. In addition, special attention should be given to identification of buildings with four (4) or more stories above ground.

At the point in time when RGT creates alignment sheets and base records, class location information shall be transferred from the report to these documents.

Whenever an increase in population density indicates a change in class location for a segment of existing pipeline, management shall conduct a study to determine the following:

- 1) The new class location.
- 2) The design, construction, and testing procedures followed in the original construction and a comparison of these with those required for the new class location.
- 3) The physical condition of the segment to the extent it can be ascertained from available records.
- 4) The operating and maintenance history of the segment.
- 5) The maximum actual operating pressure and the corresponding operating hoop stress.
- 6) The actual area affected by the population density increase, and physical barriers or other factors that may limit further expansion of the more densely populated area.

Confirmation or revisions in maximum allowable operating pressure as a result of population density changes shall be made in accordance with 49 CFR-192, Section 192.611.

#### **Reporting/Notification**

All completed copies of Form 3000, Changes In Class Location, shall be retained at the office.

### **PROCEDURE 160 – FOREIGN LINE CROSSINGS AND ENCROACHMENTS**

#### **Scope and Purpose**

Installation of any foreign lines constructed across RGT pipelines shall be witnessed by an RGT representative. Sufficient clearance shall be maintained between foreign lines and RGT facilities. In no case will vertical separation be less than twelve inches (12"). Lesser clearances may be authorized by the Supervisor if adequate provisions are made for maintenance and corrosion control (see Procedure 200, External Corrosion Control - Monitoring).

#### **Right-of-Way Encroachments**

It is the responsibility of each RGT employee to report any encroachment by outside parties onto RGT rights-of-way to management. Encroachments include any ground work such as excavation, digging, trenching, blasting, etc., the construction or installation of any above or below ground structures such as foreign lines (sewer, water, cable, and overhead electrical lines, etc.), and any building construction – permanent or temporary.

If an RGT employee discovers a foreign crew working near to a company pipeline with heavy equipment or machinery that could possibly puncture or damage the pipeline, the employee will direct the foreign crew to cease work immediately and then that employee will contact the central office, unless RGT has knowledge of the work through proper locate request records.

RGT will assign an employee to the work site in order to ensure that RGT facilities are not damaged during work.

If the pipeline has been exposed, it must be inspected in accordance with the criteria set forth in Procedure 200 - External Corrosion Control - Monitoring. In the case that the internal surface of the pipeline is exposed, it must also be inspected according to the criteria outlined in Procedure 210 - Internal Corrosion Control.

If any damage or leaks are present, actions in accordance with Procedure 110 - General Pipeline Repair must be taken.



**Reporting/Notification**

Form 1040, Foreign Line Crossing Report shall be completed for each foreign line crossing and retained on file in the office as long as the section of RGT line remains in service.

**PROCEDURE 170 – ABANDONMENT OR INACTIVATION OF FACILITIES****Scope and Purpose**

This procedure is to ensure the safe and proper abandonment of pipeline facilities as required by 49 CFR § 192.727.

**Responsibility**

The Supervisor is responsible for ensuring that all pipeline facility abandonment is performed according to the provisions of this procedure.

Defective or damaged pipeline segments that impair serviceability or may pose a hazard to the public or the environment must be abandoned whenever the subject facility is not to be scheduled for permanent repair.

**Personnel Safety**

All personnel are to utilize proper protective clothing/equipment when performing facility abandonment activities.

**Equipment and Materials**

All RGT personnel are to utilize proper tools, materials and equipment required for each facility abandonment activity.

**Instructions**

This activity is a covered task under the RGT Operator Qualification Plan and may only be performed or directed and observed by an individual who is currently qualified to perform this procedure. Refer to the RGT OQ Plan for specific qualification requirements.

**Requirements**

1. All buried piping that is to be abandoned shall be disconnected from all sources of product supply, purged of gas and sealed at both ends.
2. End sealing of piping may be achieved using mechanical end seal devices or poly foam kits.
3. All torch cutting procedures where facilities are to be separated, and mechanical separations shall be accomplished using proper metallic bonding/grounding cables and screw-clamps in order to avoid static arcing.
4. A portable Combustible Gas Indicator (CGI) shall be used before and during all welding, cutting and mechanical separation work.

**Reporting/Notification**

All pipeline facility abandonment projects shall be recorded on appropriate system maps.

**Related Procedures**

20 Startup/Shut-down/Purging  
80 Prevention of Accidental Ignition

**PROCEDURE 180 – EMERGENCY PLAN****Scope and Purpose**

This procedure is to ensure that appropriate standards are followed to provide safety when

emergency conditions occur including receiving, identifying, and classifying notices of potential or actual emergency events, effective communication with fire, police and other public officials, prompt and effective response to all emergency notifications, making available all necessary personnel, equipment and materials, protecting human life first then property, control and minimization of release of hazardous gas, assessing hazardous areas, minimizing public exposure and accidental ignition, establishing and maintain a liaison with fire and police and conducting post accident/incident review(s). These items are required by 49 CFR § 192.615 (a) through (c).

### **Responsibility**

The Supervisor and other personnel assigned to Emergency Response are responsible for compliance with the provisions of this procedure.

### **Personnel Safety**

All personnel are to utilize proper protective clothing/equipment when performing Emergency Response functions.

### **Equipment and Materials**

Equipment and materials available for use in an emergency are listed in Appendix C-1.

All applicable Supervisors/dispatch personnel will be given a current copy of the Emergency Plan.

### **Instructions**

These activities are not covered tasks under the RGT Operator Qualification Plan. However, emergency response activities may entail one or more covered tasks. Refer to the RGT OQ Plan for specific covered tasks and associated qualification requirements.

### **Receiving, identifying and classifying emergency notices -**

Potential or actual emergency conditions may be reported to RGT by the public, employees or other individuals, as follows:

1. Public/customer telephonic report
2. Employee verbal/written notification as a result of a routine system patrol
3. Direct field observation
4. Leakage Survey Data
5. Fire or Police Officials
6. Civil Defense Officials
7. Contractors
8. Other Utility Companies
9. Report by a saboteur or prankster

### **Receiving Emergency Notices -**

Any RGT employee may be required to receive information regarding a potential or actual emergency event. Therefore, all gas personnel must be capable of obtaining and recording required information from an individual making an emergency report using Form 4000, Telephonic Leak Record.

### **Identifying and classifying emergency notices -**

There are two emergency event classes for a reported emergency:

1. Potential emergency
2. Actual emergency

A *potential emergency* is an event that is:

1. Reported by an individual and cannot be immediately confirmed regarding the information obtained and recorded.
2. Indicated by a deviation in pressure or flow rate but cannot be confirmed.
3. Reported directly by an operator employee.

An *actual emergency* is an event that is:

1. Reported by an individual but is confirmed through another reliable source including deviation of pressure and flow, or another person or agency.
2. Reported directly by an RGT employee.
3. Located in an area where human lives and/or property may be threatened if immediate response is not exercised. In an area of little or no human population, the event may be classified as "*potential*" until confirmation is made.
4. Natural disasters such as unforeseen snowstorms, floods, wildfires and/or tornadoes may constitute the necessity to implement the Emergency Plan.

#### **Instructions to Callers -**

Employees receiving emergency notification must utilize all information obtained in order to react to each situation. All gas leak calls will be treated as emergencies until an on-site assessment is made. Whenever an emergency report includes the possibility of leaking gas that may be a hazard to persons or property, direct the caller to have all persons leave the leak area cautioning them to:

1. Not use smoking materials, open flames, or vehicles near the leak area
2. Leave the area immediately, RGT/Fire Department/Police Department will arrive soon

#### **Prompt and effective response -**

Immediately after receiving notification of a *potential* or *actual* emergency, the RGT employee receiving such notice will transfer all pertinent information to all appropriate company officials.

Communication with RGT officials and other emergency response agencies must be maintained during the entire emergency period.

Appropriate emergency response personnel must be dispatched to the emergency site at the earliest opportunity. These personnel shall be advised of all necessary information and equipment/materials required for control and/or mitigation of the emergency event.

Should a dispatched RGT employee require on-site assistance, a request will be communicated to the office. RGT office personnel will promptly advise the Supervisor of such a request for assistance. The Supervisor may elect to dispatch additional RGT personnel to the emergency scene.

The President and Supervisor may also be dispatched to the scene in order to assess the situation and take control of all emergency response activities.

The President or Supervisor shall designate one, (1), employee at the emergency scene as the Field Work Supervisor overseeing all emergency response fieldwork.

Whenever possible, another employee at the emergency scene shall be designated as the Field Communicator acting solely for receiving and transmitting information to the RGT office.

Field actions may include, but are not limited to, the following:

1. Protection of human life (including RGT employees) and property

2. Evacuation of building(s) and surrounding areas
3. Leakage surveys of suspected and neighboring areas
4. Shut down of system components to control pressure and flow (valves, regulators, etc.)
5. Notification of Fire, Police and other mutual emergency response agencies
6. Notification of Federal/State Pipeline Regulatory offices

**Notifying Fire, Police and other public officials -**

Personnel at the RGT office, or other designated operator personnel, shall contact appropriate police, fire and other public officials in an effort to have additional public safety measures available near and around the emergency scene.

The Emergency Telephone List, Appendix C-2, contains a current list of all emergency responders and shall be used whenever mutual assistance is required.

Open and effective communications with these officials must be maintained throughout the emergency period. Actions by these officials may include, but not be limited to, crowd control, traffic control, evacuation, providing temporary shelter, road/highway closure and emergency medical response.

In cases that constitute a reportable accident/incident, refer to Regulatory Notification Record, Appendix C-3 and **Reporting/Notification** in this procedure for Federal and State reporting requirements.

Reports to State and Federal agencies require a record of the individual contacted as well as time and date.

**Minor Gas Leak Field Response -**

The first RGT employee(s) at an emergency scene shall take the following actions, as appropriate:

1. Request assistance, as necessary
2. Maintain open communications with the RGT office
3. Determine the extent of the emergency regarding the concentration of escaping and migrating gas using only a CGI
4. Evacuation of affected persons from buildings and the emergency area
5. Eliminate all sources of ignition
6. Eliminate gas source whenever possible. This may require assistance and operation of regulators and/or valves. Take precautions not to breathe oxygen deficient air and always utilize proper protective clothing in a gaseous atmosphere.
7. Eliminate any ignited gas source(s) within capabilities
8. Recheck the affected area using a CGI, after gas flow has been controlled or eliminated (additional leakage may be present)
9. Leaks that are classified as *Grade 1* must be repaired immediately
10. *Grade 2* and *Grade 3* leaks may be scheduled according the requirements in Procedure 40 - Leakage Surveys

**Major Gas Leak Field Response -**

In response to gas leaks determined to be major, including piping breaks the first RGT employee(s) at the emergency scene shall take the following actions, as appropriate:

1. Establish and maintain open communications with mutual emergency response agencies on the scene (request and offer assistance, as necessary)

2. Maintain open communications with the RGT office
3. Establish an Emergency Operations Center, (EOC), as deemed necessary
4. Determine the extent of the emergency regarding the concentration of escaping and migrating gas using only a CGI
5. Evacuation of affected persons from buildings and the emergency area
6. Eliminate all sources of ignition
11. Eliminate gas source whenever possible. This may require assistance and operation of regulators and/or valves. Take precautions not to breathe oxygen deficient air and always utilize proper protective clothing in a gaseous atmosphere.
7. Eliminate any ignited gas source(s) within capabilities
8. Request Fire/Police to re-route traffic, as necessary, when a possibility of ignition is suspected
9. Consider lowering the gas supply pressure, isolating a segment of piping or taking a pipe segment out of
10. Begin all necessary repairs
11. Place all affected piping back into service after effective and complete repair
12. Recheck the affected area using a CGI, after gas flow has been restored (additional leakage may be present)
13. Announce to the RGT office and other emergency response agencies when the emergency nature of the situation has been mitigated

#### **Fires/Explosions -**

1. Establish and maintain open communications with mutual emergency response agencies on the scene (request and offer assistance, as necessary)
2. Maintain open communications with the RGT office
3. Establish an Emergency Operations Center, (EOC), as deemed necessary
4. Determine the extent of the emergency regarding whether gas is involved and the concentration of escaping and migrating gas using only a CGI
5. When gas is not involved, take action to protect nearby gas facilities
6. When gas is involved, begin evacuation of affected persons from buildings and the emergency area
7. Eliminate all sources of ignition
8. Eliminate gas source whenever possible. This may require assistance and operation of regulators and/or valves.
9. Take precautions not to breathe oxygen deficient air and always utilize proper protective clothing in a gaseous atmosphere.
10. Eliminate any ignited gas source(s) within capabilities
11. Consider lowering the gas supply pressure, isolating a segment of piping or taking a pipe segment out of service
12. Begin all necessary repairs
13. Place all affected piping back into service after effective and complete repair
14. Recheck the affected area using a CGI, after gas flow has been restored (additional leakage may be present)
15. Announce to the RGT office and other emergency response agencies when the emergency nature of the situation has been mitigated

#### **Natural Disasters -**

During and after the occurrence of natural disasters, the Supervisor will be responsible for maintaining open communication with both RGT personnel and outside emergency response agencies.

Appendix C-2 contains a current list of emergency response agencies that may be contacted for mutual assistance. System plats/maps should also be available

Natural disasters may pose unique scenarios for RGT personnel. Many of the guidelines described for particular emergencies may apply to similar circumstances associated with natural disasters.

#### **Earthquake -**

After a major earthquake in the RGT right-of-way area, all available RGT personnel will be contacted to report for emergency response duty.

System patrolling will be performed with particular attention to the regulator stations and block valve locations with regard for potential damage and subsequent leakage.

All areas where abnormal movement could affect the serviceability of RGT facilities, including creek and bridge crossings, will receive the next patrolling priority.

Emergency shutdown of RGT facilities will be performed where such activity is deemed necessary.

#### **Flash Flooding -**

Flash flooding will necessitate the protection of human life and property, including RGT personnel.

RGT personnel will not risk entering floodwaters for any reason without the aid of emergency personnel and equipment.

The Supervisor will determine which segments of the RGT transmission system will be shut down due to inundation by floodwaters.

After floodwaters have receded, the regulator station will be checked for intake of water.

Previously inundated areas will be patrolled for signs of facility damage and movement of large amounts of soil that may have caused washouts of RGT facilities.

RGT facilities exhibiting evidence of water intake will be thoroughly purged according to Procedure 20 Startup/Shut-down/Purging.

A follow-up leakage detection survey will be performed after all required purging has been completed.

#### **Snowstorms -**

When snowstorms deposit an unpredicted amount of snow that may impair the serviceability of the regulator station and/or block valve locations, system patrolling will commence in order to clear snow away from these facilities.

#### **Wildfires -**

Whenever a wildfire has the potential to impinge upon RGT facilities, the Supervisor will dispatch field personnel to patrol all areas of the RGT system where wildfire may become a danger to RGT facilities. Such facilities will be considered for shutdown and isolation until all fire danger has been mitigated.

All decisions for RGT facility shutdown and isolation will be performed in close conjunction with Fire/Police officials.

System shutdown and startup will be performed according to Procedure 20 Startup/Shutdown/Purging.

### **News Media**

The RGT office should be used for media contact where telephones and other office equipment are available for use. All media personnel should sign a roster attendance of meetings with RGT management. A complete list of all injuries, fatalities, and missing persons, as applicable shall be prepared and presented to the press only after next of kin is notified. Job titles, hire dates, and admitting hospitals may be released. Street names, buildings, and other landmarks shall be provided to the press. Dollar loss and blame shall not be released. News media will be allowed on RGT property with an escort and supplied with the appropriate equipment such as hard hats, when required. No media personnel shall be permitted into the affected area until the situation is deemed safe and news crews and camera operators should always be escorted at all times while in the affected area. After the area has been deemed safe, camera operators and news crews will not be prohibited from taking pictures of the scene. All reporters shall be properly briefed on the emergency situation as soon as information becomes available. Employees shall not speculate on anything or agree to speculations of outsiders. Only RGT management officials in charge of the emergency shall advise the media of information related to the emergency.

### **Gathering of Emergency Data**

After each major gas leak, fire or explosion, appropriate RGT officials, in conjunction with other mutual emergency response agencies, shall conduct an investigation in order to gather all facts, data and evidence associated with the emergency. This gathering effort will include, but not be limited to, the following:

1. Requesting a record of all mutual response agency communications, activities and generated reports, during and related to, the emergency
2. A record of all RGT information, communications and activities transpiring during the emergency
3. A request to have all officials and employees involved in the emergency present to assist or provide input
4. Preservation of all potential or actual physical and recorded evidence (Procedure 140 Investigation of Failures)
5. Consider pressure testing piping segments
6. Review system maintenance activities and leakage survey results in the affected area (Refer to Procedure 40 Leakage Surveys)
7. Determine whether recent construction activity has taken place in the affected area
8. Review cathodic protection records for the affected area (Refer to Procedure 200 External Corrosion Control – Monitoring)

### **Post-Emergency Review**

After each emergency event has been mitigated and any required notifications/reports have been filed, RGT officials shall conduct a review of all facts, personnel actions and response activities associated with the emergency. This review shall determine the effectiveness of emergency response in order to eliminate any recurrence and to establish any areas of response that could be improved. Activities identified for improvement shall be scheduled for implementation at the earliest opportunity.

Any RGT post accident drug/alcohol testing deemed to be required shall be conducted according to RGT drug/alcohol testing procedures.

The results of this review shall be documented and maintained at the RGT office.

**Emergency Liaison Program**

RGT will offer an annual program to Fire, Police, and other mutual emergency response agencies in order to remain in compliance with 49 CFR §192.615 (a) (2) and (8), as well as 192.615 (c) (1-4).

This program will include discussion of RGT intentions and employee training provisions for adhering with these requirements, as well as a detailed presentation of natural gas characteristics compared to other pure gases and hydrocarbon vapors.

A record of persons attending, their respective agencies and a synopsis of the program contents shall be maintained at the RGT office.

**Emergency Site Cleanup and Restoration**

Each emergency site/area shall be cleaned and restored to a condition that is as near normal to that preceding the emergency.

**Employee Training**

All RGT emergency response personnel will be trained regarding the provisions of the Emergency Plan on an annual basis. This training will include discussion, question and answer, testing and any other methods felt necessary by the Supervisor to ensure that the responsible employees demonstrate sufficient knowledge of the plan and associated responses.

**Reporting/Notification**

18.60.2.8 B. (1) of the NMPRC requires that any release of gas involving;

1. human death or inpatient hospitalization, or
2. estimated property damage, including cost of lost gas, to the operator or others, of \$5,000.000 or more. be reported under provisions of 49 CFR §191.3.
3. an event that is significant, in the judgment of the operator, even though it did not meet the criteria of 1. or 2., be reported under the provisions of 49 CFR §191.5, §191.9 and §191.15.

The Supervisor, or his/her designee, will submit the following incident notifications/reports:

Emergency scenarios that meet the definition of "*incident*" under 18.60.2.8 B. (1) of the NMPRC will be telephonically reported to the NMPRC within two, (2) hours after discovery. Emergency scenarios that meet the definition of "*incident*" under 49 CFR §191.3 (1) (ii) will be telephonically reported to OPS, COPUC, and NMPRC under the requirements of 49 CFR §192.5, §191.9 and §191.15

Transmission system incident reports will be submitted using DOT Form RSPA F 7100.2 as soon as practicable but not more than thirty, (30), days after detection of an *incident* required to be reported telephonically, as stated above.

Should additional relevant information pertaining to a transmission system *incident*, as described above, become available after submittal of the required written report, RGT will submit a supplemental report, as soon as practicable, clearly referencing the original written report by date and subject.

**Related Procedures**

5 Abnormal Operating Conditions  
20 Startup/Shut-down/Purging  
40 Leakage Surveys



80 Prevention of Accidental Ignition  
90 Safety Related Conditions/Reporting  
110 General Pipeline Repair  
200 External Corrosion Control – Monitoring  
220 Record Keeping

## **PROCEDURE 190 – EXAMINATION OF EXPOSED PIPE AND DETERMINATION OF REMAINING STRENGTH**

### **Scope and Purpose**

This procedure is to ensure the safe operation of the RGT pipeline system by inspecting the condition of pipe and pipe coating whenever any portion of the pipe is exposed for any reason and determining appropriate remedial action for damaged pipe as required by 49 CFR § 192.459.

### **Responsibility**

The Supervisor is responsible to ensure that anytime any portion of RGT pipe is exposed for any reason that it is inspected according to this procedure. The Supervisor is responsible to determine remaining pipe strength and recommend remedial action.

### **Personnel Safety**

Caution should be taken in entering excavations to ensure that the risk of collapse has been addressed through shoring, benching or stable soils.

### **Equipment and Materials**

Coating materials and application tools  
Copper-copper sulfate half cell  
Voltmeter/contact leads

### **Instructions**

All cathodic protection work will be performed under the under the direction of a person qualified in pipeline corrosion control methods. Exposed pipe inspection is a covered task under the RGT Operator Qualification Plan and may only be performed by or directed and observed by an individual who is currently qualified to perform this procedure. Refer to the RGT OQ Plan for specific qualification requirements.

Determining remaining strength and recommending remedial action are not covered tasks.

### **Inspection Frequency**

There is no scheduled frequency for this inspection. Inspections must be performed *whenever* the pipe is exposed for any reason. This would include all excavations performed by RGT personnel or its contractors, as well as whenever a 3<sup>rd</sup> party is *digging on the* pipeline right-of-way.

### **Survey Steps**

#### **If the pipeline is coated:**

1. Visually inspect the condition of the coating.
2. If coating is disbonded, remove disbonded coating and inspect using the steps for uncoated pipe below.
3. Visually inspect the condition of the pipe under removed coating. If any metal loss exceeds 10% of pipe wall thickness, contact the Supervisor immediately.
4. When no pipe metal is lost, repair the area from which coating was removed according to Procedure 110 General Pipeline Repair.

**If the pipeline is uncoated:**

1. Clean the pipe surface to bare metal, taking care not to abrade the pipe surface.
2. If any metal loss exceeds 10% of pipe wall thickness, contact the Supervisor immediately.
3. Properly coat the uncoated piping segment. Any areas of atmospheric exposure or any areas with evidence of atmospheric corrosion found on the pipeline shall either be coated or jacketed with an industry acceptable material suitable for the prevention of atmospheric corrosion.

If an area of corrosion or coating damage extends to either edge of the area of pipe exposed by the excavation, additional pipe should be excavated, exposed and inspected in both directions until the extent of the damaged pipe is determined.

**Supplemental Pipe-to-Soil Readings:**

Whenever a segment of the RGT pipeline is exposed for any reason, a supplemental pipe-to-soil reading shall be taken and recorded on Form 21000, Annual Cathodic Protection Survey Record.

**Determining the remaining strength of pipe -**

All 3<sup>rd</sup> Party and corrosion damage to metallic piping exceeding 10% loss of nominal pipe wall thickness shall be evaluated by RGT using the procedure developed by AGA/Battelle--A Modified Criterion for Evaluating the Remaining Strength of Corroded Pipe (RSTRENG).

**Remedial action -**

Any pipe that is found to be generally corroded or have localized corrosion pitting so that the remaining wall thickness is less than required to support the Maximum Allowable Operating Pressure, (MAOP), must either be replaced, repaired or the operating pressure must be reduced to a Maximum Operating Pressure supported by the remaining strength of the pipe.

**Reporting/Notification**

Complete Form 1000 for each exposed piping/coating repair and/or remaining strength analysis. Complete Form 1010 for all corrosion discovered and remediated. Notify the Supervisor immediately if metal loss exceeds 10% of wall thickness.

**Related Procedures**

Damage Prevention

110 General Pipeline Repair

200 External Corrosion Control - Monitoring

**PROCEDURE 200 – EXTERNAL CORROSION CONTROL - MONITORING****Scope and Purpose**

This procedure is to ensure adequate external corrosion protection for the pipeline systems. It describes cathodic protection inspection practices required under 49 CFR § 192.465.

**Responsibility**

The Supervisor is responsible to ensure that cathodic protection levels are checked at the intervals described in this procedure. The Supervisor will be a person qualified in pipeline corrosion control methods as determined by the OQM Plan.

**Personnel Safety**

All personnel are to utilize proper protective clothing/equipment when performing pipeline

system operations and maintenance functions.

#### **Equipment and Materials**

Copper-copper sulfate half cell  
Voltmeter/contact leads  
Test stations/lead wire  
Thermoweld equipment  
Coating Repair equipment

#### **Instructions**

This activity is a covered task under the RGT Operator Qualification Plan and may only be performed by or directed and observed by an individual who is currently qualified to perform pipe-to-soil readings. Refer to the RGT OQ Plan for specific qualification requirements.

#### **Inspection Frequency**

Cathodic protection surveys will be performed at least once each calendar year, at intervals not to exceed fifteen (15) months. Additional survey tests will be conducted in areas determined to require such testing.

#### **Requirements**

Each new buried or submerged pipeline shall be protected against external corrosion by the installation of an acceptable external protective coating and the installation of a cathodic protection system designed to protect the pipeline in its entirety. The cathodic protection system shall be installed and placed in operation within one (1) year after completion of construction.

#### **Criteria for Cathodic Protection Test Stations -**

Every section of pipeline that is cathodically protected must have in place either a test station or contact points for the electronic measurement of the adequacy of the cathodic protection of the line.

Particular attention shall be given to the repairing or application of coating where test lead conductors are attached to the pipe. Coating material applied at test lead connections shall be of an electrical insulating material compatible with pipe coating and the insulation on the test lead wire.

#### **Electrical Isolation -**

Every one of the company's cathodically protected underground structures must be electrically isolated from every other underground structure unless the structures are electrically interconnected and are protected cathodically together, as a single unit. Insulating devices are not permitted in areas where combustible gas can be anticipated unless precautions are taken to prevent arcing.

Every underground pipeline is required to be electrically isolated from pipeline casings. For portions of pipelines that are electrically isolated, it is required that at least one insulating device be installed in order to facilitate corrosion control.

#### **Protection from Lightning and Fault Currents -**

In every instance where a pipeline and/or insulating device is subject to lightning or fault currents, it is necessary to protect these structures from such currents. Examples of areas of concern include locations near electrical transmission towers, grounding grids/cables, and counterpoise.

**Monitoring of Cathodic Protection Systems -**

The RGT pipeline must be tested for effective corrosion protection in order to determine if the corrosion protection system meets the following DOT requirement:

1. A negative voltage of at least 0.85 volts DC (exclusive of any IR drop) across the pipeline surface and a reference-saturated copper-copper sulfate half-cell. Determination of this voltage will be made with the protective current applied.

All cathodic protection tests will meet following monitoring requirements:

1. Pipe-to-soil potentials will be reported on Form 21000.
2. Re-test of pipe-to-soil potential and confirm that appropriate levels of protection have been established at a frequency of every 12 months after discovery of corrosion.

**Damaged or Missing Test Stations -**

All test stations found to be damaged shall be repaired by proper electrically conductive secure attachment. Particular attention shall be given to the repairing or application of coating where test lead conductors are attached to the pipe. Coating material applied at test lead connections shall be of an electrical insulating material compatible with pipe coating and the insulation on the test lead wire.

In the event that a test station is found to be missing, it must be replaced with another test station in the original location, which can be determined by the station number. In the case that the requirements listed in this standard are deemed impractical, and the cathodic protection of the pipeline is not dependent upon the missing or damaged test station, then the station may be retired.

**Proper documentation is required stating the reason for retiring the station.**

**Monitoring of Casings -**

For each pipeline casing, RGT will measure and record the pipe-to-soil potential of the casing and compare this value to the pipe-to-soil measurement of the gas carrying pipeline inside the subject casing. Whenever these values are within +/- 0.20 volts DC, the casing should be energized and the readings retaken and compared. If these energized values are similar, the casing and carrier pipe may be shorted, and remedial action must be taken to eliminate the short. The frequency of inspection of cased pipelines will be once every calendar year with intervals not exceeding 15 months.

**Atmospheric Corrosion – Monitoring -**

All above ground pipelines or portions of pipelines that are exposed to the atmosphere shall be inspected for atmospheric corrosion at least once each calendar year. Where evidence of atmospheric corrosion is found or other reportable conditions are noted, Form 1060 shall be completed and remedial action taken.

Any areas of atmospheric exposure or any areas with evidence of atmospheric corrosion found on the pipeline shall be cleaned and either coated or jacketed with an industry acceptable material suitable for the prevention of atmospheric corrosion. Replacement or repair of the pipe, reduction of the MAOP (based on remaining wall thickness) or other remedial measures shall be taken as required by the severity of the atmospheric corrosion.

**Reporting/Notification**

Forms 1060 and 21000 and/or maps shall be maintained in the office to indicate effective corrosion protection of the RGT pipeline. Records and/or maps of each cathodic protection test, inspection, and necessary repair shall be retained at the office for as long as the pipeline remains in service.

**Related Procedures**

100 Tapping Pipelines Under Pressure

110 General Pipeline Repair

190 Examination Of Exposed Pipe And Determination Of Remaining Strength

**PROCEDURE 210 – INTERNAL CORROSION CONTROL****Scope and Purpose**

This procedure is to ensure the safe operation of pipeline systems by monitoring and controlling internal corrosion as required by 49 CFR § 192.477.

**Responsibility**

The Supervisor is responsible to ensure that all metallic pipe removed from the system, or opened, is inspected for internal corrosion, that records are made of each inspection and that any corrective action taken is recorded and maintained for the life of system.

**Personnel Safety**

There are no special personnel safety issues.

**Instructions**

This activity is a covered task under the Operator Qualification Plan and may only be performed by or directed and observed by an individual who is currently qualified to perform this procedure. Refer to the OQ Plan for specific qualification requirements.

**Inspection Frequency**

Whenever any metallic pipe is cut, tapped or opened. This procedure should also be implemented should El Paso/Colorado Interstate Gas advise RGT that the gas they are delivering is corrosive or contains impurities.

**Survey Steps**

The internal surface or piping or a retrieved coupon from tapping shall be inspected for evidence of corrosion. If internal corrosion is detected, further investigation will be done which will include inspections of internal surfaces of adjacent pipe to an extent in both directions until non-corroded pipe is found.

**Reporting/Notification**

Form 2010, Internal Corrosion Record, must be completed for each internal corrosion inspection. Records and/or maps shall be maintained in the RGT office as necessary to establish, implement, and evaluate an adequate and effective internal corrosion control program. Such records and maps of each test, tapping coupon, survey, or inspection required by this procedure shall be retained for as long as the pipeline remains in service, in sufficient detail to demonstrate the adequacy of internal corrosion control measures or that a corrosive condition does not exist.

The Supervisor must be notified immediately if any evidence of internal corrosion is discovered.

**Related Procedures**

100 Tapping Pipelines Under Pressure

110 General Pipeline Repair

190 Examination Of Exposed Pipe And Determination Of Remaining Strength

## **VII. RECORDS**

### **PROCEDURE 220 – RECORD KEEPING**

#### **Scope and Purpose**

This procedure is to ensure the safe operation of the pipeline system by recording and maintaining records of all repairs, patrols, surveys, inspections and tests required by 49 CFR § 192.709 and Subparts L and M.

#### **Responsibility**

The Supervisor is responsible to ensure that all pipeline records are properly obtained and maintained according to the provisions of this procedure.

#### **Personnel Safety**

There are no special personnel safety issues.

#### **Instructions**

This activity is not a covered task under the RGT Operator Qualification Plan.

#### **Reporting/Notification**

The following records must be periodically completed and maintained on appropriate forms:

<u>Record Type</u>	<u>Interval</u>
Public Education	1 year
Damage Prevention	1 year
Patrolling	5 years
Block Valves	5 years
Regulator Stations	5 years
Relief Devices	5 years
Leakage Surveys	Lifetime
Cathodic Protection	Lifetime
Pipeline Repair	Lifetime
Strength/Leak Tests	Lifetime
Abandoned Facilities	Lifetime
MAOP	Lifetime

#### **Related Procedures**

Damage Prevention  
Public Education  
Maximum Allowable Operating Pressure (MAOP)  
Cathodic Protection (various standards)  
30 Pipeline Patrolling  
40 Leakage Surveys  
60 Pressure Limiting And Regulating Stations – Inspection And Testing  
110 General Pipeline Repair  
120 Valve Maintenance  
170 Abandonment Or Inactivation Of Facilities

## **VIII. DRUG AND ALCOHOL TESTING**

### **Scope and Purpose**

RGT tests covered employees (and contractor's employees) for the presence of prohibited drugs and workplace alcohol use and also provides an Employee Assistance Program. Preventing accidents and injuries resulting from the misuse of prohibited drugs and alcohol by employees who perform operations, maintenance, and emergency response functions are included in this program. The RGT program ensures compliance with 49 CFR 49 Part 199 Subparts A & B.

### **Program**

RGT Drug and Alcohol testing required in Title 49 Part 199 is contracted by:

Rocky Mtn. Div of Clinical labs  
2025 N. Norwood Ave  
Colo. Springs, CO

The Drug and Alcohol Testing laboratory used under Title 49 part 199.13 is:

The Same as above

Review of testing results are completed by the following Medical Review Officers:

Anne Peterson (719) 295-1911

### **Reporting/Notification**

Records shall be retained by the Human Resources Department for 5 (five) years.

# **OPERATIONS AND MAINTENANCE PLAN – CONTENTS DESCRIPTION**

<b>Procedure</b>	<b>Purpose</b>	<b>Responsible Party</b>	<b>Applicable Records &amp; Location Retained</b>
Determination of Class Location	To provide guidelines for determining the Class Location Of RGT facilities	Supervisor	Original determination record, retained in office
O&M Manual Review/Revision	To provide guidelines for reviewing the contents of the RGT O&M Manual to ensure continued compliance	Supervisor	Form 5000, retained in office
O&M Work Review	To provide guidelines for reviewing O&M work performed by RGT staff for continued compliance	Supervisor	Form 5001, retained in office
Excavation Safety	To establish guidelines for safely working in deep trenches	Supervisor	No Forms required
Damage Prevention	To establish guidelines for minimizing damage to RGT facilities through locating requirements	Supervisor	Retention of records from all materials sent to the excavators & the public
Public Education	To establish guidelines for minimizing damage to RGT facilities and to educate the public for reporting gas emergencies	Supervisor	Retention of records from all materials sent to excavators & the public
MAOP	Establishment of the RGT pipeline MAOP	Supervisor	Establishment Records at the RGT office
Pretested Pipe	Establish criteria for strength testing replacement piping	Supervisor	Tagged piping segments in storage area
Construction	Establishment of new construction & repair requirements	Supervisor	Various required records retained at the RGT office



Procedure Number	Procedure	Purpose	Responsible Party	Applicable Records & Location Retained
5	Abnormal Operating Conditions	To provide guidelines for determining and reacting to situations that may indicate when design limits have been exceeded	Supervisor	Form 20000, retained in office
10	Continuing Surveillance	To provide guidelines for determining unusual operating and maintenance conditions through observation	Supervisor	Form 2000, retained in office
20	Startup/Shut-down/ Purging	To provide guidelines for startup, shut-down and purging pipelines to prevent the formation of a hazardous mixture of gas and air	Supervisor	Form 8000, retained in office
30	Pipeline Patrolling	To detect undesired or hazardous conditions for timely corrections	Supervisor	Forms 1040, 3000, and 11000, all retained in office
40	Leakage Surveys	To establish guidelines for conducting leakage surveys for detection of pipeline leaks	Supervisor	Forms 4010, 6000, and 10000, retained in office
50	Pipeline Markers	To dictate proper locations for line markers	Supervisor	Form 11000, retained in office

<b>Procedure Number</b>	<b>Procedure</b>	<b>Purpose</b>	<b>Responsible Party</b>	<b>Applicable Records &amp; Location Retained</b>
60	Pressure Limiting and Regulating Stations - Inspection and Testing	To ensure integrity of operation of pressure limiting and regulating stations, including relief valves	Supervisor	Form 14000, retained in office
70	Pipeline Lowering	To ensure that all aspects of pipeline lowering are performed in a safe manner	Supervisor	Copies of all records/maps retained in office
80	Prevention of Accidental Ignition	To provide guidelines for prevention of accidental ignition of a gas leak or presence in pipeline facilities	Supervisor	Not Applicable
90	Safety-Related Conditions/Reporting	To ensure adequate creation and distribution of reports of safety-related conditions of pipelines in service	Supervisor	Form 4020 and required regulatory reports/records retained in the office
100	Tapping Pipelines Under Pressure	To provide guidelines for making hot taps	Supervisor	Form 7000, retained in office
110	General Pipeline Repair	To provide guidelines for proper pipeline repairs	Supervisor	Form 6000, retained in office

<b>Procedure Number</b>	<b>Procedure</b>	<b>Purpose</b>	<b>Responsible Party</b>	<b>Applicable Records &amp; Location Retained</b>
120	Valve Maintenance	To keep valves necessary for safe operation of the pipeline in good working order	Supervisor	Form 1500 retained in office
130	Welding Procedure and Welder Test Procedure	To provide guidelines for creating effective, safe welds, and to provide guidelines in weld procedures and welder qualification	Supervisor	Records of details of weld procedures and methods will be retained in office
140	Investigation of Failures	To establish guidelines for proper investigation and analysis of failed components	Supervisor	Records, maps, photos, and analysis retained in office
150	Changes in Class Location	To provide guidelines for observation of construction adjacent to pipeline right-of-way for verification or initiation of change of class location	Supervisor for surveillance, office for maintaining base records and determining changes	Original determination record, and Form 3000, retained in office
160	Foreign Line Crossings and Encroachments	To provide guidelines for safe, serviceable line crossings	Supervisor	Form 1040, retained in office

<b>Procedure Number</b>	<b>Procedure</b>	<b>Purpose</b>	<b>Responsible Party</b>	<b>Applicable Records &amp; Location Retained</b>
170	Abandonment or Inactivation of Facilities	To provide guidelines for properly abandoning pipeline facilities	Supervisor	Written records/maps retained in office
180	Emergency Plan	To provide for safety of the general public and company personnel and property	Supervisor	Forms 1010, 4000, 4010, and Appendix C3 Notification retained in office
190	Examination of Exposed Pipe and Determination of Remaining Strength	To provide extended damage prevention and continued support of the pipeline MAOP as well as adequate cathodic protection	Supervisor	Forms 100 and 1010, and any strength determination records
200	External Corrosion Control	To maintain adequate external corrosion protection	Supervisor	Pipeline maps showing cathodic protection facilities, and Forms 1000, 1010, 1040, 1060, and 21000 all retained in office
210	Internal Corrosion Control	To maintain adequate internal corrosion protection	Supervisor	Form 2010, retained in office. Tap coupons retained at storage area
220	Record Keeping	To provide guidelines for all required records completion and retention periods	Supervisor	Various records

## **REPORTING FORMS**

**Form 1000 – Condition of Coating and Pipe Record**  
**Form 1010 – Report of Corrosion Leaks, Breaks, and Pits**  
**Form 1040 – Foreign Line Crossing Record**  
**Form 1060 – Atmospheric Pipe Inspection Record**  
**Form 2000 – Continuing Surveillance Record**  
**Form 2010 – Internal Corrosion Inspection Record**  
**Form 3000 – Changes In Class Location Record**  
**Form 4000 – Telephonic Leak Report**  
**Form 4010 – Report of Breaks, Leaks Damages, and Repairs**  
**Form 4020 – Safety-Related Condition Report**  
**Form 5000 – O&M Manual Review/Revision Record**  
**Form 5001 – O&M Work Review Record**  
**Form 6000 – General Pipeline Repair Record**  
**Form 7000 – Field Tap Record**  
**Form 8000 – Report of Gas Loss**  
**Form 10000 – Leakage Survey Record**  
**Form 11000 – Pipeline Patrolling Record**  
**Form 12000 – Locate Request Record**  
**Form 14000 – Regulator Station & Relief Valve Inspection Record**  
**Form 15000 – Valve Maintenance and Inspection Record**  
**Form 16000 – Welder Qualification Test Record**  
**Form 19000 – Notification of Major Construction/Repair**  
**Form 20000 – Abnormal Operation Condition Record**  
**Form 21000 – Annual Cathodic Protection Survey**

### Form 1000 - Condition of Coating and Pipe Record

Date \_\_\_\_\_ Office \_\_\_\_\_ Area Meas. No. \_\_\_\_\_ Line Size & No. \_\_\_\_\_

Section No \_\_\_\_\_ MP \_\_\_\_\_ Rechain No \_\_\_\_\_ to \_\_\_\_\_

Between Station \_\_\_\_\_ and Station \_\_\_\_\_

PIPE OD \_\_\_\_\_ Wall Thickness \_\_\_\_\_ Feet Exposed \_\_\_\_\_ Cover \_\_\_\_\_

Reason for Exposure \_\_\_\_\_

Is Pipe Pitted \_\_\_\_\_ Number of Pits \_\_\_\_\_ Deepest Pit \_\_\_\_\_ Mils

COATING Type: \_\_\_\_\_

Thickness\*: Mils at: 0° \_\_\_\_\_ 45° \_\_\_\_\_ 90° \_\_\_\_\_ 135° \_\_\_\_\_ 180° \_\_\_\_\_

225° \_\_\_\_\_ 270° \_\_\_\_\_ 315° \_\_\_\_\_

Condition of Coating \_\_\_\_\_

ENVIRONMENT: Terrain \_\_\_\_\_ Soil Type \_\_\_\_\_

Soil Condition \_\_\_\_\_ Drainage \_\_\_\_\_

P/S Potential Reading \_\_\_\_\_ Volts DC (negative polarity unless otherwise noted)

INTERNAL PIPE CONDITION \_\_\_\_\_

REMARKS: \_\_\_\_\_

\_\_\_\_\_

\*Readings taken clockwise facing downstream

By: \_\_\_\_\_

## Form 1010 - Report of Corrosion Leaks, Breaks, and Pits

Date \_\_\_\_\_ Office \_\_\_\_\_ Area \_\_\_\_\_ Pipeline \_\_\_\_\_  
 Section No \_\_\_\_\_ MP \_\_\_\_\_ Rechain No. \_\_\_\_\_ To \_\_\_\_\_  
 Nature of Failure \_\_\_\_\_  
 Type of Corrosion \_\_\_\_\_  
 Location of Pits \_\_\_\_\_  
 Number of Pits \_\_\_\_\_ Deepest Pit \_\_\_\_\_ mils Avg. Depth of Pits \_\_\_\_\_ mils  
 Dimensions of Pits \_\_\_\_\_  
 PIPE:  
 OD \_\_\_\_\_ in Wall Thickness \_\_\_\_\_ mils Pipe Exposed \_\_\_\_\_ ft Soil Cover \_\_\_\_\_ in.

### INITIAL PIPE TO SOIL POTENTIALS – VOLTS DC (Negative polarity unless noted):

	Failure Point		Ditch Upstream		Ditch Downstream
At Pipe/Soil Interface					
At Ground Surface					

SOIL TESTS \_\_\_\_\_ Terrain \_\_\_\_\_ Type Soil \_\_\_\_\_  
 Soil Condition \_\_\_\_\_

REMEDIAL STEPS: Repairs Made \_\_\_\_\_ Ft. of Pipe Replaced \_\_\_\_\_  
 Type of Coating Applied \_\_\_\_\_  
 Pipeline Coating Inspection Performed By \_\_\_\_\_  
 Supplementary Cathodic Protection Applied \_\_\_\_\_

### PIPE TO SOIL POTENTIALS AFTER REPAIR – VOLTS DC (Negative polarity unless noted):

	Failure Point		Ditch Upstream		Ditch Downstream
At Pipe Depth					
At Ground Surface					

Gas or  
 COST ANALYSIS: Loss: Product \_\_\_\_\_ MCF \$ \_\_\_\_\_ Repairs \$ \_\_\_\_\_  
 Cathodic Protection \$ \_\_\_\_\_ Other \$ \_\_\_\_\_ Total Cost \$ \_\_\_\_\_

REMARKS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

BY: \_\_\_\_\_

# Form 1040 – Foreign Line Crossing Record

Report No. \_\_\_\_\_ Date of Crossing \_\_\_\_\_ Date Inspected \_\_\_\_\_  
 Inspected By \_\_\_\_\_

Location Tract No. \_\_\_\_\_ County \_\_\_\_\_ State \_\_\_\_\_  
 Township \_\_\_\_\_ Range \_\_\_\_\_ Section \_\_\_\_\_

Line No.	Size	Base Pipeline	Survey Station	Mile Post	Distance & Direction from Base Pipeline
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

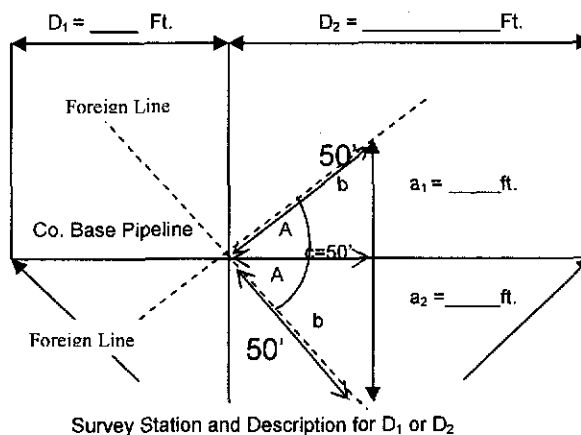
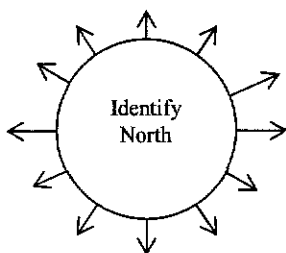
Foreign Line Owner \_\_\_\_\_ Address \_\_\_\_\_  
 Contractor / Installer \_\_\_\_\_ Address \_\_\_\_\_  
 Prior Identification Received ☐ Yes ☐ No Received By \_\_\_\_\_  
 When Notified \_\_\_\_\_ How Notified \_\_\_\_\_

## Foreign Line

Size \_\_\_\_\_ Type/Transports \_\_\_\_\_ Material/End Connections \_\_\_\_\_  
 Type/Condition of Coating \_\_\_\_\_ Foreign Line \_\_\_\_\_ Co. No. \_\_\_\_\_  
 Crosses: ☐ Over ☐ Under Type Soil \_\_\_\_\_  
 Soil Cover to Top \_\_\_\_\_ Foreign Line \_\_\_\_\_ Co. No. \_\_\_\_\_  
 Clearance Between Lines \_\_\_\_\_ Corrosion Test Site Installed ☐ Yes ☐ No  
 Type of Corrosion Test Site Installed \_\_\_\_\_  
 Alignment Sheet No. \_\_\_\_\_ Drawings Attached \_\_\_\_\_

Remarks \_\_\_\_\_

Crossing Details Insert either  $a_1$  or  $a_2$  and either  $D_1$  or  $D_2$ . Add sketch on back or separate sheet if needed for additional detail.



## FOR OFFICE USE

$$\text{Cosine } A = \frac{b^2 + c^2 - a^2}{2bc}$$

for  $b$  &  $c = 50$  feet,

$$\text{Cosine } A = \frac{5000 - a^2}{5000}$$

Cosine  $A =$  \_\_\_\_\_

$A =$  \_\_\_\_\_ Deg.

Survey Station and Description for  $D_1$  or  $D_2$

Submitted By: \_\_\_\_\_ Date: \_\_\_\_\_ Field Manager \_\_\_\_\_ Date \_\_\_\_\_



## Form 1060 - Atmospheric Pipe Inspection Record

Date \_\_\_\_\_ Location \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Line Size & No. \_\_\_\_\_ MP \_\_\_\_\_ Corrosion Sect. No \_\_\_\_\_

Facility Inspected: Block Valve \_\_\_\_\_ Regulating Station \_\_\_\_\_ Piping \_\_\_\_\_

Other \_\_\_\_\_

\_\_\_\_\_

Paint Condition \_\_\_\_\_ Good \_\_\_\_\_ Fair \_\_\_\_\_ Poor \_\_\_\_\_

Work Required \_\_\_\_\_ None \_\_\_\_\_ Sandblast \_\_\_\_\_ Paint \_\_\_\_\_ Re-coat \_\_\_\_\_

Work Completed \_\_\_\_\_ None \_\_\_\_\_ Sandblast \_\_\_\_\_ Paint \_\_\_\_\_ Re-coat \_\_\_\_\_

Materials Used \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Remarks: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

BY: \_\_\_\_\_

# Form 2000 - Continuing Surveillance Record

## PERIODIC VISUAL INSPECTION OF FACILITIES

1. Changes of population densities.
2. Effect of exposure or movement of pipeline facilities.
3. Changes in topography which may have an effect on pipeline facilities.
4. Potential for or evidence of tampering, vandalism or Damage.
5. Effects of encroachments on pipeline facilities.
6. Potential for gas migration into buildings from vaults and pits through air intakes.
7. Other

Abnormal or Unusual O&M Conditions? YES	Abnormal or Unusual O&M Conditions? NO	Abnormal or Unusual O&M Conditions? N/A	Action Taken

## PERIODIC REVIEW AND ANALYSIS OF RECORDS

1. Patrols.
2. Leakage Surveys.
3. Valve Inspections.
4. Vault Inspections.
5. Pressure regulating, relieving and limiting equipment inspections.
6. Corrosion control inspections.
7. Other

Abnormal or Unusual O&M Conditions? YES	Abnormal or Unusual O&M Conditions? NO	Abnormal or Unusual O&M Conditions? N/A	Action Taken

## UNSATISFACTORY PIPELINE SEGMENTS

Location

Program to Recondition, Phase Out, or Reduce MAOP


## Form 2010 - Internal Corrosion Inspection Record

Location: \_\_\_\_\_

Pipe: \_\_\_\_\_ MP \_\_\_\_\_ Pipe Size: OD \_\_\_\_\_ in, wall \_\_\_\_\_ in

Coupon Dimensions \_\_\_\_\_ in. Date of Coupon Removal \_\_\_\_\_

Pipe Cylinder Removed \_\_\_\_\_ Date of Cylinder Removal \_\_\_\_\_

Remedial Action: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Materials Used: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Remarks: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_



## Form 3000 – Changes in Class Location Record

Report No. \_\_\_\_\_ Report of Human Occupancy Within 660 Ft  
Initial Report \_\_\_\_\_ Report of Multiple Occupancy Location Within 300 Ft  
Supplement Report No. \_\_\_\_\_ Report of Other Construction Within 200 Ft

Date of Report \_\_\_\_\_ Field/District Office \_\_\_\_\_

Date Inspected: \_\_\_\_\_ Inspected By \_\_\_\_\_

Location:

Line \_\_\_\_\_ Line No. \_\_\_\_\_ Size \_\_\_\_\_

MP \_\_\_\_\_ County \_\_\_\_\_ State \_\_\_\_\_ Tract No \_\_\_\_\_

Township \_\_\_\_\_ Range \_\_\_\_\_ Section \_\_\_\_\_

Alignment Drawing/Sheet No \_\_\_\_\_

Description of Construction \_\_\_\_\_

Limits of Construction: Survey Station \_\_\_\_\_ to \_\_\_\_\_

Closest Distance from Pipelines (Measured 90° to Lines):

(1) \_\_\_\_\_ Ft. from Line \_\_\_\_\_ At Survey Station \_\_\_\_\_

(2) \_\_\_\_\_ Ft. from Line \_\_\_\_\_ At Survey Station \_\_\_\_\_

(3) \_\_\_\_\_ Ft. from Line \_\_\_\_\_ At Survey Station \_\_\_\_\_

(4) \_\_\_\_\_ Ft. from Line \_\_\_\_\_ At Survey Station \_\_\_\_\_

Direction from Line (Circle One):      North      South      East      West

Distances Between Lines (If more than one) \_\_\_\_\_

Amount of Cover over Lines \_\_\_\_\_

Is Construction Subject to Being Occupied by 20 or more people during normal use? \_\_\_\_\_

Property Owner \_\_\_\_\_ Address \_\_\_\_\_

Builder, Contractor and/or Engineering Firm \_\_\_\_\_

Address \_\_\_\_\_

Name of Person Advised of Line Location and By Whom Employed or Relationship to Project \_\_\_\_\_

Date and Type of Warning or Notification Signs or Markers Installed \_\_\_\_\_

Drawing No. Attached \_\_\_\_\_

Submitted By: \_\_\_\_\_ Supervisor: \_\_\_\_\_

## Form 4000 -Telephonic Leak Report

Time \_\_\_\_\_ Date \_\_\_\_\_

RGT Employee Tacking Report \_\_\_\_\_

Reported By \_\_\_\_\_ Title \_\_\_\_\_

Reporting Party Address \_\_\_\_\_

Reporting Party Telephone Number \_\_\_\_\_

Leak Location \_\_\_\_\_

When Leak was Noticed \_\_\_\_\_

Apparent Leak Cause \_\_\_\_\_

Fire ☐ Yes ☐ No

Deaths \_\_\_\_\_ Injuries \_\_\_\_\_

Size Line \_\_\_\_\_

Operating Pressure: \_\_\_\_\_

Loss of Pressure \_\_\_\_\_

Loss of Flow \_\_\_\_\_

Blowing Gas

Damage to System \_\_\_\_\_

Damage to Other Property \_\_\_\_\_

Personnel Dispatched \_\_\_\_\_

Time Personnel Dispatched \_\_\_\_\_

Reported to: DOT Yes [ ] COPUC Yes [ ] NMPRC Yes [ ]

## Form 4010 - Report of Breaks, Leaks, Damages and Repairs

Report No. \_\_\_\_\_ Date of Report \_\_\_\_\_

Line No & Size \_\_\_\_\_ Mile Post \_\_\_\_\_ Survey Station \_\_\_\_\_  
Pressure Dropped from \_\_\_\_\_ PSIG To \_\_\_\_\_ PSIG at \_\_\_\_\_ AM/PM  
Time Reported \_\_\_\_\_ AM/PM Date \_\_\_\_\_ By \_\_\_\_\_ To \_\_\_\_\_  
Dispatcher Notified \_\_\_\_\_ AM/PM Date \_\_\_\_\_ By \_\_\_\_\_ To \_\_\_\_\_

Stations \_\_\_\_\_ Shutdown \_\_\_\_\_ AM/PM Date \_\_\_\_\_

Weather \_\_\_\_\_ Temp \_\_\_\_\_ °F Crew \_\_\_\_\_  
Conditions \_\_\_\_\_ Arrived \_\_\_\_\_ AM/PM Date \_\_\_\_\_

Valves Closed \_\_\_\_\_  
\_\_\_\_\_ AM/PM Date \_\_\_\_\_

Line Blown Down \_\_\_\_\_ AM/PM Date \_\_\_\_\_ Repair Completed \_\_\_\_\_ AM/PM  
Purging Started \_\_\_\_\_ AM/PM From \_\_\_\_\_ To \_\_\_\_\_ Thru Size \_\_\_\_\_ Blowoff

Valves Opened \_\_\_\_\_  
\_\_\_\_\_ AM/PM Date \_\_\_\_\_

Station \_\_\_\_\_ Resumed Operations \_\_\_\_\_ AM/PM Date \_\_\_\_\_

Nature, Apparent Cause & Method of Detection \_\_\_\_\_  
\_\_\_\_\_ Did Fire Occur? \_\_\_\_\_

Materials Used \_\_\_\_\_

Type of Area \_\_\_\_\_

Nearest Structure: Type \_\_\_\_\_ Distance \_\_\_\_\_

Property Owner - Name & Address \_\_\_\_\_

Tract No. \_\_\_\_\_ County \_\_\_\_\_ State \_\_\_\_\_  
Description of Property Damage \_\_\_\_\_

IF DAMAGED FACILITY:

Names & Addresses of All Parties Concerned \_\_\_\_\_

Name of RGT Personnel Present \_\_\_\_\_

If available, Enclose Photographs, Sketches, and Pencil Impressions

Remarks \_\_\_\_\_

\_\_\_\_\_  
Signed \_\_\_\_\_  
Supervisor \_\_\_\_\_

### Form 4020 - Safety-Related Condition Report

(send to OPS, NMPRC, or COPUC. Addresses Appendix C3 – Regulatory Notification Record)

#### Safety-Related Condition Report

Name of Operator \_\_\_\_\_

Principal Address \_\_\_\_\_

Name of Person Submitting Report \_\_\_\_\_

Title \_\_\_\_\_ Signature \_\_\_\_\_

Telephone No. \_\_\_\_\_ Submittal Date \_\_\_\_\_

#### OPERATOR INFORMATION:

Name of Person Determining Condition Reportable \_\_\_\_\_

Title \_\_\_\_\_ Signature \_\_\_\_\_

Telephone Number \_\_\_\_\_

#### CONDITION INFORMATION:

Date Condition Discovered \_\_\_\_\_ Date Determined Reportable \_\_\_\_\_

Condition Location \_\_\_\_\_

System Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip Code \_\_\_\_\_

Pipeline Station Number \_\_\_\_\_

#### CONDITION/CAUSE/EFFECT/DESCRIPTION:

How discovered \_\_\_\_\_

Apparent Cause    ☐ corrosion    ☐ earthquake    ☐ landslide    ☐ flood    ☐ leak  
                         ☐ crack / material defect    ☐ physical damage  
                         ☐ malfunction/operator error that causes overpressure  
                         ☐ condition that causes 20% reduction in pressure or shutdown  
                         ☐ Third party damage    ☐ other

Additional Description/Cause/Significant Effects on Safety \_\_\_\_\_



\_\_\_\_\_  
\_\_\_\_\_  
Closest City/Town near facility \_\_\_\_\_

Physical location \_\_\_\_\_  
\_\_\_\_\_

Operator activities to mitigate safety-related condition \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name of Operator contact \_\_\_\_\_

Contact phone number \_\_\_\_\_

email \_\_\_\_\_

## Form 5000 – O&M Manual Review/Revision Record

[illegible]

**Form 5001 – O&M Work Review Record**[illegible]

## REPORT # \_\_\_\_\_

CRACK	[ ]	CREEK CROSSING	[ ]	REG. STATION	[ ]
VALVE	[ ]	STREET	[ ]	VALVE BOX	[ ]
DITCH	[ ]	R.R. ENCASEMENT	[ ]		
OTHER	[ ]	HWY ENCASEMENT	[ ]		

PIPE	[ ]	REGULATOR	[ ]	WELD	[ ]
VALVE	[ ]	RELIEF	[ ]	OTHER	[ ]
FLANGE	[ ]				

NEGATIVE      []                      POSITIVE                      []                      OFF SCALE                      []  
 % LEL \_\_\_\_\_ % UEL \_\_\_\_\_

DATE REPAIR COMPLETED       /      /      

DESCRIPTION/METHOD OF REPAIR INCLUDING COATING TYPE AND METHODOLOGY \_\_\_\_\_

[illegible]

DAMAGE BY THIRD PARTY	<input type="checkbox"/>	CORROSION	<input type="checkbox"/>	COATING	<input type="checkbox"/>
CONSTR. DEFECT	<input type="checkbox"/>	VALVE	<input type="checkbox"/>	TAP FITTING	<input type="checkbox"/>
MATERIAL FAILURE	<input type="checkbox"/>	OTHER	<input type="checkbox"/>	REGULATOR	<input type="checkbox"/>

REPAIR PERFORMED BY: \_\_\_\_\_

Supervisor: \_\_\_\_\_

## Form 7000 - Field Tap Record

Report No. \_\_\_\_\_ Report Date \_\_\_\_/\_\_\_\_/\_\_\_\_

Date(s) Work Performed \_\_\_\_/\_\_\_\_/\_\_\_\_ to \_\_\_\_/\_\_\_\_/\_\_\_\_

### TAP LOCATION DATA

Line No. \_\_\_\_\_ Size \_\_\_\_\_ Pipeline \_\_\_\_\_

County \_\_\_\_\_ State \_\_\_\_\_ Survey Station \_\_\_\_\_ MP \_\_\_\_\_

Tract No. \_\_\_\_\_ Section \_\_\_\_\_ Township \_\_\_\_\_ Range \_\_\_\_\_

### TAP DATA

☐ Hot ☐ Cold Tap Position \_\_\_\_\_ Line Pressure \_\_\_\_\_ PSIG

Valve Make, Size Type \_\_\_\_\_ Pressure Rating \_\_\_\_\_ Connection/Flange Series \_\_\_\_\_

Valve FIG or S/N \_\_\_\_\_ No. Assigned \_\_\_\_\_ Left Blinded or Connected \_\_\_\_\_

Tapping Machine On \_\_\_\_AM/PM Make Tapping Machine \_\_\_\_\_ Hole Size – Actual \_\_\_\_\_

☐ Weldolet ☐ Tee ☐ Split Sleeve ☐ Pad \_\_\_\_\_ Weldolet Size & Schedule \_\_\_\_\_

Nipple Size & Specification \_\_\_\_\_ Split Sleeve or Pad Size & Specification \_\_\_\_\_

Main Line Pipe Specifications \_\_\_\_\_ Tap installation Coating \_\_\_\_\_ Weather Conditions \_\_\_\_\_

### WELDER DATA

Welder(s) \_\_\_\_\_

### INSPECTIONS AND TESTS

Valve Pretest \_\_\_\_\_ Pipe Nipple Pretest \_\_\_\_\_

Pipe Nipple & Valve Test After Welding \_\_\_\_\_

Actual Pipe Thickness at Tap & How Determined \_\_\_\_\_

Weld Tests: Radiography \_\_\_\_\_ Visual \_\_\_\_\_

Other: \_\_\_\_\_

### GENERAL DATA

Gas Loss Record Reference \_\_\_\_\_

Remarks \_\_\_\_\_

TAP PERFORMED BY: \_\_\_\_\_

SUPERVISOR: \_\_\_\_\_

# Form 8000 - Report of Gas Loss

Location		Month		Sheet		of						
Line Break, Blown Down or Pack												
Date	Line Sect.	Line Size	Valve ID <sup>2</sup> inches	Pressure Initial	Pressure Final	Pressure Differential	Y	Line ID <sup>2</sup> inches <sup>2</sup>	Length feet	Factor	Volume MCF	AFE or Job No.
							X	X	X	0.0000004	=	
							X	X	X	0.0000004	=	
							X	X	X	0.0000004	=	

Y = 1 + (Press. Diff x .00017)

## Line Purges

Date	Line Sect.	Valve Size	Valve ID <sup>2</sup> inches	% Valve Opening	Upstream Press - PSIG	Minutes Purged	Factor	Volume MCF	AFE or Job No.
						X	X 0.000111	=	
						X	X 0.000111	=	
						X	X 0.000111	=	

## Pigs Received

Date	Valve Size	Valve ID <sup>2</sup> inches	% Valve Opening	Minutes Open	Upstream Press - PSIG	Factor	Volume MCF	AFE or Job No.
					X	0.00011	+ 25 =	
					X	0.00011	+ 25 =	
					X	0.00011	+ 25 =	
					X	0.00011	+ 25 =	
					X	0.00011	+ 25 =	
					X	0.00011	+ 25 =	
					X	0.00011	+ 25 =	

## UNITS BLOWN DOWN

Total number of units blown down at this station this month was

UNMEASURED STARTING GAS

The total number of units started at this station this month was

MISCELLANEOUS

Other misc. estimated loss from leaks, blowing scrubbers, vented gas, etc.

REMARKS:

16.026 Total  
(Total X 1.020) = 14.73 Total

Form 8000 Continued

Chart – Valve and Pipe Line Dimensional Data - Standard Weight

Nom. Size inches	ID <sup>2</sup>
1	1.10
2	4.27
3	9.41
4	16.21
6	36.78
8	63.70
10	100.40
12	144.00
14	175.56
16	232.56
18	297.56
20	370.56
22	451.56
24	540.56
26	625.00

## Form 10000 - Leakage Survey Record

Line Section From Station _____ to Station _____				Leakage Rate MCFD	
Date	Leak No.	MP	Description	Found	Left

Tagged Leaks Inspected or Repaired				
			Inspection	
Leak No.	Leakage MCFD	Date Repaired	Date	Remarks

Note: Ensure that Form 6000, General Pipeline Repair, is completed for each pipeline leak repair.

Remarks: \_\_\_\_\_

RGT Employee: \_\_\_\_\_



## FORM 11000 – Pipeline Patrolling Record

Location: \_\_\_\_\_ Date: \_\_\_\_\_

Leakage Found:      Yes            ☐                                      No            ☐

                                 Visual       ☐                                      Other       ☐

Identified Site Found: Yes       ☐                                      No            ☐

Marker #: \_\_\_\_\_

Markers:                                      OK            ☐  
   Missing       ☐  
   Damaged     ☐

Coating:                                      OK            ☐  
   Missing       ☐  
   Damaged     ☐

Insulators:                                      OK            ☐  
   Missing       ☐  
   Damaged     ☐

Supports:                                      OK            ☐  
   Missing       ☐  
   Damaged     ☐

Description of work performed: \_\_\_\_\_

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---

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Materials Used: \_\_\_\_\_

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RGT Employee: \_\_\_\_\_

Date(s): \_\_\_\_ / \_\_\_\_ / \_\_\_\_ to \_\_\_\_ / \_\_\_\_ / \_\_\_\_

## FORM 12000 – Locate Request Record

Name of Person Receiving Location Request: \_\_\_\_\_ Office Location: \_\_\_\_\_ Report No: \_\_\_\_\_

Date/Time Report Received: \_\_\_\_\_ 20 \_\_\_\_\_ AM/PM Received by ☐ Phone ☐ Letter ☐ Other

Other Company Personnel Notified of this Request Date/Time \_\_\_\_\_ 20 \_\_\_\_\_ AM/PM

### LOCATE REQUEST PARTY IDENTIFICATION AND PROPOSED WORK

Business Name: \_\_\_\_\_

Address \_\_\_\_\_ Phone \_\_\_\_\_

City \_\_\_\_\_ County \_\_\_\_\_ State \_\_\_\_\_

Name and Type of Request \_\_\_\_\_ Calling Phone No \_\_\_\_\_

Description of Information Requested or Work to be performed \_\_\_\_\_

Starting Date/Time \_\_\_\_\_ Will Explosives Be Used? \_\_\_\_\_

Location of Proposed Work: State \_\_\_\_\_ County \_\_\_\_\_ City \_\_\_\_\_

Township \_\_\_\_\_ Range \_\_\_\_\_ Section \_\_\_\_\_ Other \_\_\_\_\_

### COMPANY PIPELINE OR FACILITY INVOLVED

Facility or Pipeline \_\_\_\_\_ Survey Station \_\_\_\_\_ MP \_\_\_\_\_

Describe Involvement \_\_\_\_\_

### INFORMATION REPORTED TO REQUESTING PARTY

Date Responded \_\_\_\_\_ Name of Person Responding \_\_\_\_\_

Report Given By: ☐ Phone ☐ Letter ☐ Other \_\_\_\_\_ Drawings Furnished? \_\_\_\_\_  
☐ No ☐ Yes Sheet No. \_\_\_\_\_

Instruction to Foreign Party \_\_\_\_\_

Marking Date Discussed \_\_\_\_\_

Promised Date for On-site Pipeline/Facility Location and marking \_\_\_\_\_

Other Coordination Date \_\_\_\_\_

Date Line Marked \_\_\_\_\_

Description of Actual Marking \_\_\_\_\_

## FORM 14000 –Regulating Station & Relief Valve Inspection Record

Reg. Station \_\_\_\_\_ Serial Number \_\_\_\_\_ Date \_\_\_\_\_

Manufacturer \_\_\_\_\_ Body Size \_\_\_\_\_ Type/Material \_\_\_\_\_

Inner Valve Size \_\_\_\_\_ Type/Material \_\_\_\_\_

Capacity \_\_\_\_\_ Set Point \_\_\_\_\_

Worker \_\_\_\_\_ Monitor \_\_\_\_\_

Pressures: Valve Inlet \_\_\_\_\_ Valve Outlet \_\_\_\_\_ Lockup Pressure \_\_\_\_\_

Controller/Pilot: Make \_\_\_\_\_ Type \_\_\_\_\_ Range \_\_\_\_\_ Serial No. \_\_\_\_\_

Inspection: Controller \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ Pilot \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ Gauge Lines \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

Remarks: \_\_\_\_\_

Aux. Controls Positioner Type \_\_\_\_\_ Positioner Range \_\_\_\_\_

RV Popped at \_\_\_\_\_ psig

Actuator Pressure to Close Required \_\_\_\_\_ Actual \_\_\_\_\_

Pressure to Open Required \_\_\_\_\_ Actual \_\_\_\_\_

Equipment: Inner Valve \_\_\_\_\_ Diaphragm \_\_\_\_\_

Instruments \_\_\_\_\_ Aus Controls \_\_\_\_\_

Checked Filter \_\_\_\_\_ RV Stack \_\_\_\_\_

All Station Valves Operated \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ All Station Valves Lubricated \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

Remarks \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

RGT Employee: \_\_\_\_\_

## FORM 15000 – Valve Maintenance and Inspection Record

[illegible]

RGT Employee: \_\_\_\_\_

## Form 16000 – Welder Qualification Test Record

Contract Welder, Name \_\_\_\_\_

Contractor \_\_\_\_\_

Contractor Address \_\_\_\_\_

Project \_\_\_\_\_

Location \_\_\_\_\_

Company Welder, Name \_\_\_\_\_

Procedure \_\_\_\_\_ Base material \_\_\_\_\_

Specification \_\_\_\_\_ Thickness \_\_\_\_\_

Filler \_\_\_\_\_ Filler Size \_\_\_\_\_

Process \_\_\_\_\_ Current \_\_\_\_\_

Coupon Test qualification: \_\_\_\_\_

Testing Facility \_\_\_\_\_ Test Number \_\_\_\_\_

Testing Facility Supervisor \_\_\_\_\_

Type \_\_\_\_\_ Position \_\_\_\_\_

Remarks \_\_\_\_\_

Radiography Qualification \_\_\_\_\_

Radiography Company \_\_\_\_\_

Radiography Inspector \_\_\_\_\_

The attached film was graded in accordance with Section 6.0 of API 1104

API 1104 Pass \_\_\_\_\_ Fail \_\_\_\_\_

We certify that the statements made in this record are true and correct and that the test welds were prepared, welded, and tested in accordance with the appropriate sections of API 1104 and do hereby qualify the welder.

For Raton Gas Transmission \_\_\_\_\_

Date \_\_\_\_ / \_\_\_\_ / \_\_\_\_

## Form 19000 – Notification of Major Construction/Repair

MAJOR Construction\_\_\_\_\_

or

MAJOR Repair\_\_\_\_\_

Send To: NM PRC  
Gas Pipeline Safety Bureau  
142 West palace Ave  
PO Box 1269  
Santa Fe, NM 87504-1269

Date of Notification \_\_\_\_/\_\_\_\_/\_\_\_\_

Construction/Repair job Title: \_\_\_\_\_ Job  
ID# \_\_\_\_\_

Location of Construction: Section\_\_\_\_\_, Township\_\_\_\_\_,  
Range\_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

County: \_\_\_\_\_

Directions to location from nearest  
town/city: \_\_\_\_\_

Estimated Direct Project Costs (excluding overheads):

\$ \_\_\_\_\_

Anticipated Start Date: \_\_\_\_\_ Anticipated Finish  
Date \_\_\_\_\_

Type of Construction or Repair:

Steel Pipeline \_\_\_\_\_ Open Trench \_\_\_\_\_ Renewal \_\_\_\_\_ Compressor  
Station \_\_\_\_\_

Regulator/meter station \_\_\_\_\_ Bore \_\_\_\_\_ Plow \_\_\_\_\_ Uprate \_\_\_\_\_

Other: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Notice Given by:

Name \_\_\_\_\_

Location: \_\_\_\_\_

Phone: \_\_\_\_\_ e-mail \_\_\_\_\_

## Form 20000 – Abnormal Operation Condition Record

[illegible]Date of Completion:   /  /  

**Signature:** \_\_\_\_\_

**ATTACH SUPPLEMENTAL SHEET(S) AND DRAWINGS TO THIS RECORD, AS APPLICABLE,**

## Form 21000 – Annual Cathodic Protection Survey Record

[illegible]

ALL READINGS ARE NEGATIVE VOLTS DC UNLESS OTHERWISE DESIGNATED.



## **APPENDICES**

**Appendix A1 – Excavator List**

**Appendix A2 – Excavator Notification Letter**

**Appendix B1 – Third Party Damage Report**

**Appendix C1 – Emergency Equipment List**

**Appendix C2 – Emergency Telephone List**

**Appendix C3 – Regulatory Notification Record**

## Appendix A1 – Excavator List

### Excavators

<b>Febbraro Construction Co.</b> 2010 Santa Fe Trail Trinidad, CO 81082 (719) 846-7789	<b>Chuck Tamburelli</b> 14500 CR 57 7/10 Bon Carbo, CO 81024 (719) 846-3590	<b>Frank J. Cerame</b> 33811 Hwy 12 Jansen, CO 81082 (710) 846-3539
<b>Gene Pantano</b> 37795 CR 32 4/10 El Moro, CO 81082 (719) 846-3007	<b>Roy Morris</b> 20878 CR 91 Hoene, CO 81046 (719) 846-7959	<b>David H. Construction, Inc.</b> 135 West Plum Trinidad, CO 81082 (719) 846-3200
<b>Felix Chavez &amp; Son Constr.</b> 16900 Hwy 12 Weston, CO 81091 (719) 868-2123	<b>Fisher's Peak Excavation</b> 325 E. Topeka Trinidad, CO 81082 (719) 846-4063	<b>Ferrero's Dozer Service</b> 34320 Hwy 12 Trinidad, CO 81082 (719) 846-2176
<b>MK Resources, Inc.</b> 1801 Pinon Street Trinidad, CO 81082 (719) 846-7234	<b>Purgatoire Valley Constr., Inc.</b> 117 Pine Trinidad, CO 81082 (719) 846- 8449	<b>R. Nelson &amp; Sons</b> 1513 Buena Vista Trinidad, CO 81082 (719) 859-1583
<b>S &amp; S Services</b> 19901 Hwy 12 Weston, CO 81091 (719) 868-3004	<b>Spanish Peaks Constr.</b> 22580 CR 43 7/10 Gulnare, CO 81020 (719) 941-4272	<b>Cornerstone Contractors</b> 308 Garrett Dr. Trinidad, CO 81082 (719) 846-4157
<b>CT Bueno Construction</b> 1502 S. Oak Trinidad, CO 81082 (719) 846-9261	<b>Heartwood Construction</b> 213 E. Topeka Ave. Trinidad, CO 81082 (719) 846-9792	<b>Van Staveren Construction</b> 12443 Escondido Dr. Weston, CO 81091 (719) 868 3646
<b>Veltri Contractors</b> 1014 Lincoln Trinidad, CO 81082 (719) 680-1338	<b>Mattorano Homes, Inc.</b> 10100 CR 69 3/10 Trinidad, CO 81082 (719) 846-9811	<b>Advance Development Constr.</b> 1310 Nevada Ave. Trinidad, CO 81082 (719) 846-3710
<b>Beard &amp; Son Constr.</b> P.O. Box 654 Weston, CO 81091 (719) 868-2521	<b>Blue Diamond Builders</b> 238 N. Commercial Trinidad, CO 81082 (719) 846-1088	<b>D &amp; W Concrete, Inc.</b> 205 E. Frost Trinidad, CO 81082 (719) 845-0962
<b>Jeff Fleshman Constr.</b> 13763 Winterhawk Dr. Trinidad, CO 81082 (719) 859-5152	<b>K.I.S.S. Steel Bldgs.</b> 2429 Main Trinidad, CO 81082 (719) 846-6306	<b>Lassiter Constr.</b> P.O. Box 36 Bon Carbo, CO 81024 (719) 846-7181
<b>Marann Associates</b> 34380 Hwy 12 Trinidad, CO 81082 (719) 846-4811	<b>MATT Industries</b> 13599 CR 73 3/10 Trinidad, CO 81082 (719) 845-0172	<b>Pendo Constr.</b> 419 W. Main Trinidad, CO 81082 (719) 846-4044

**Robinson Remodeling**  
112 S. Benedicta Ave.  
Trinidad, CO 81082  
(719) 859-6060

**Rocky Mountain Constr.**  
1510 Stonewall Ave.  
Trinidad, CO 81082  
(719) 846-4890

**Schrepfer Industries**  
3700 E. Main  
Trinidad, CO 81082  
(719) 846-0538

**Timber Valley Builders**  
14552 CR 23 3/10  
Weston, CO 81091  
(719) 868-2250

**Jim Duran Brick Contractor**  
45533 CR 89 7/10  
Trinidad, CO 81082  
(719) 846-8619

#### **Fences**

**Majestic Fencing & Landscaping**  
1185 Fishers Peak Ave.  
Trinidad, CO 81082  
(719) 846-4743

#### **Landscaping and Sprinklers**

**Arid Oasis Lanscapes**  
113 N. Commercial St.  
Trinidad, CO 81082  
(719) 680-1450

**Don's Landscaping**  
P.O. Box 366  
Trinidad, CO 81082  
(719) 868-2070

**J & B Sprinkler Systems**  
14348 CR 71 1/10  
Trinidad, CO 81082  
(719) 846-2709

**Western Rain Sprinkler**  
14560 CR 30 1/10  
Weston, CO 81091  
(719) 868-2033

#### **Plumbing and Heating**

**Fernandez P & H**  
414 Goddard Ave.  
Trinidad, CO 81082  
(719) 846-3814

**McKenzie P & H**  
900 Arizona Ave.  
Trinidad, CO 81082  
(719) 846-6126

**KAF P & H**  
1018 Atchison Ave.  
Trinidad, CO 81082  
(719) 846-6387

**The Plumbing Shoppe**  
200 N. Maple  
Trinidad, CO 81082  
(719) 846-7149

**M & M Plumbing**  
619 E. 9th  
Trinidad, CO 81082  
(719) 846-3217

**John Tomsic**  
316 Ash Street  
Trinidad, CO 81082  
(719) 846-3610

**Heise's Plumbing**  
P.O. Box 59  
Bo Carbo, CO 81024  
(719) 859-0534

**TJ's Heating**  
23003 CR 43 7/10  
Aguilar, CO 81020  
(719) 941-4967

**Trinidad Stove & Fireplace**  
23442 Hwy 12  
Trinidad, CO 81082  
(719) 846-4729

**D-N-V P & H**  
407 West Colorado Ave.  
Trinidad, CO 81082  
(719) 846-0934

**Tree Service**

**Jon's Tree Service**  
19091 Hwy 12  
Weston, CO 81091  
(719) 868-3350

**Porras Trees**  
27701 CR 43 7/10  
Aguilar, CO 81020  
(719) 941-4584

**Trinidad Tree Service**  
P.O. Box 962  
Trinidad, CO 81082  
(719) 846-4886

**Well Drilling**

**Boday Well Drilling**  
13162 CR 57 7/10  
Trinidad, CO 81082  
(719) 846-6412

## Appendix A2 – Excavator Notification Letter

To: {INSERT EXCAVATOR NAME & ADDRESS}

{INSERT DATE}

From: Raton Gas Transmission  
1360 South Second  
P.O. Box 880  
Raton, NM 87740  
(505) 445-0007

SUBJECT: GAS FACILITY DAMAGE PREVENTION PROGRAM

Raton Gas Transmission is required by state and federal pipeline safety regulations to communicate on a periodic interval with all known local excavators and contractors working within the operations and service area of our gas distribution facilities. This communication is intended to promote continued public safety regarding the existence of our buried natural gas piping.

Our gas transmission system is operated between Trinidad, Colorado and Raton, New Mexico.

If your company is planning an excavation, drilling, blasting or horizontal directional boring project in areas where the Raton Gas Transmission has facilities, we will provide you with a free (no cost) gas pipeline location service. The States of Colorado and New Mexico require that you call the Utility Notification Center of Colorado (UNCC) One-Call Service at 1-800-922-1987, and the New Mexico One-Call System at 1-800-321-2537 at least two, (2), working days prior to the beginning of your excavation work. To save yourself time and frustration when calling the UNCC and NMOCS, please have the following information at hand when you place the call:

1. Name of the company doing the excavation work.
2. Name of contact person for the company.
3. Street address or other location of the work site.
4. Name of the nearest intersecting street.
5. Legal description for the job site  
(i.e. R 14 south, T 78 west, Section 8).
6. Type of work being done.
7. Date work is to be started.

You may contact our office directly regarding gas pipeline locates, however, you are still required to call the Utility Notification Center of Colorado (UNCC) One-Call Service at 1-800-922-1987 and the New Mexico One-Call System at 1-800-321-2537 to locate any underground utilities that other operators may have in the area where you intend to excavate. Once notified, Raton Gas Transmission will mark all gas facilities with temporary fluorescent "yellow", yellow flags on wire and/or yellow "whiskers" depending on the type of surface.

We are happy to be able to provide this service to you, free of charge, and to work in conjunction with the contractor and excavators in our service area in order to maintain a high level of public safety. Please feel free to contact our office at any time if we can assist with this or any other issue.

Thank You,

Raton Gas Transmission

# Appendix B1 – Third Party Damage Report

(REPLICA)

## PUBLIC REGULATION COMMISSION

### *Pipeline Safety Department*

## REPORT OF THIRD PARTY UNDERGROUND DAMAGE

COMPANY		INCIDENT	
<b>Name:</b> <b>Address</b>  <b>Telephone No:</b>		<b>Date Reported:</b> _____ <b>Time:</b> _____ <b>am</b>  <b>Date Occurred:</b> _____ <b>Time:</b> _____ <b>am</b>  <b>Location of Incident:</b>  <b>Type of Damage (line cut, gouge, coating damage, etc.):</b>	
IDENTITY OF ALLEGED VIOLATOR		<input type="checkbox"/> Damaged with non-mechanical equipment <b>Was There Gas Leakage?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No  <b>Pipeline Information at time of Damage:</b> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Distribution  <input type="checkbox"/> Main  <input type="checkbox"/> Service  <input type="checkbox"/> Transmission </div> <div> <b>Type of Material:</b>   <b>Pipe Size:</b>   <b>Pipe Depth (at time of damage):</b>   <b>Operating Pressure:</b> </div> </div>	
<b>Company Individual:</b>  <b>Address:</b>			
OWNER/FOREMAN/SUPERVISOR CREW			
<b>Name:</b>			
ESTIMATED DAMAGE			
<b>Estimated damage to company facilities including lost gas:</b>  <div style="font-size: 2em;">\$</div>	<b>Estimated damage to other property:</b>  <div style="font-size: 2em;">\$</div>		
PROBABLE CAUSE			
<input type="checkbox"/> Line locate(s) not requested. <input type="checkbox"/> Line locate(s) requested but excavator exceeded time frame of five working days. <input type="checkbox"/> Line locate(s) was incorrect (If so, explain in remarks section). <input type="checkbox"/> Line locate(s) requested but excavator proceeded to excavate before locate was made. <input type="checkbox"/> Estimated clearance of eighteen inches not maintained between non-exposed line and cutting edge of mechanical <input type="checkbox"/> Pipeline not properly supported in the area of excavation (Explain below). <input type="checkbox"/> Pipeline not properly backfilled (Explain below). <input type="checkbox"/> Line spots were not maintained by contractor (Explain below). <input type="checkbox"/> Contractor called for locate but dug outside requested area of locate (Explain below).			
REMARKS			
REPORT PREPARATION			
<b>Name Title:</b> _____		<b>Date:</b> _____	
<b>Reviewed By:</b> _____		<b>Date:</b> _____	

## **Appendix C1 – Emergency Equipment List**

Backhoe  
Dump Truck  
Compressor  
Equipment Trailer  
Assorted hand tools  
Portable Fire Extinguisher  
Traffic cones and warning signs  
Magnetic Pipe Locator  
Trench Shoring  
Traffic barricades  
Ingress/egress ladder  
Lifeline/Harness  
Breathing Apparatus  
Flame Ionization Instrument (FID)  
Combustible Gas Indicator (CGI)  
Fire Retardant Clothing  
Welding Equipment  
Communications Equipment

## Appendix C2 - RGT Emergency Telephone List

Name	Position	Home Phone	Home Address	City	State	Equipment
Patricia Link	President	(575) 445-5111	1360 S. Second	Raton	NM	
David N. Link	Vice-President	(505) 984-0004	223 N Guadalupe St #274	Santa Fe	NM	
Larry Martinez	Operations Superintendent	(575) 445-8549	725 E. Cook Ave	Raton	NM	Truck, Welding equipment
Thomas Sanchez	Service Consultant	(575) 445-8755	818 S. Fourth St.	Raton	NM	Truck, 2-way radio
Ron Pacheco	Service Consultant	(575) 445-8945	1135 S. 2 <sup>nd</sup> SP #7	Raton	NM	Truck, Back Hoe
Phil Martinez	Service Consultant	(575) 445-9631	300 E. 8 <sup>th</sup> St.	Raton	NM	Truck

Agency	Number	Address	City	State
Emergency	911		All	All
Raton Police	(575) 445-2704	Municipal Bldg - 224 Savage Ave	Raton	NM
Trinidad Police	(719) 846-4441	125 N. Animas	Trinidad	CO
Raton Sheriff	(575) 445-5561	440 Hereford Ave.	Raton	NM
Trinidad Sheriff	(719) 846-2211		Trinidad	CO
New Mexico Highway Patrol	(575) 445-5571		Raton	NM
Colorado Highway Patrol	(719) 846-2227	10201 CR 69 3-10	Trinidad	CO
Pendleton Oil & Gas	(575) 445-3121	South Highway 85	Raton	NM
B&W Truck Stop	(575) 445-3102	901 Clayton Road	Raton	NM
Gas Transporter - Colorado Interstate Gas Company	(719) 520-4221	2 N. Nevada Ave.	Colorado Springs	CO
<b>New Mexico PRC:</b>				
Bruno Carrara, Director	(505) 827-4290			
Deana Trujillo, Pipeline Safety Engineer	(505) 827-3731 (505) 490-0611 (cell)	(505) 827-3767 Fax		
SCC Pipeline Safety Bureau	(505) 827-3549	(505) 827-3767 Fax		





### **Appendix C3 – Regulatory Notification Record**

**The telephonic incident report must be made to both the State Public Regulatory Commission and the Federal Office of Pipeline Safety.**

New Mexico Public Regulatory Commission  
Pipeline Safety Bureau  
P. O. Drawer 1269  
Santa Fe, New Mexico 87504-1269  
**(505) 827-3773**  
or  
**(505) 827-3731**  
**(505) 827-3767 (fax)**

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State of Colorado Public Utilities Commission  
1580 Logan Street, Office Level 2  
Denver, CO 80203  
**(303) 894-2854**  
**(303) 894-2065 (fax)**

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Office of Pipeline Safety  
Research and Special Programs Administration  
National Response Center  
Nassif Building, Room 2335  
400 Seventh Street, SW  
Washington, DC 20590  
**(800) 424-8802**

An incident requiring telephonic notification must be followed by a written report within thirty (30) days of detection.

**DATE:** \_\_\_\_/\_\_\_\_/\_\_\_\_

**EMPLOYEE SIGNATURE:** \_\_\_\_\_

**TIME OF TELEPHONIC NOIFICATION:** \_\_\_\_\_ **AM [ ] PM [ ]**

**NAME OF CALL RECIPIENT:** \_\_\_\_\_

**DESCRIPTION OF NOTIFICATION:** \_\_\_\_\_

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Add additional pages of the Description of Notification should be attached, as necessary.